

July/August 1999

VOLUME 15

NUMBER 4

# Facilities Manager

The official publication of APPA: The Association of Higher Education Facilities Officers

## A Profile of Maggie Kinnaman

---

*The Image of  
Campus Facilities*



Nonprofit  
Organization  
U.S. Postage  
**PAID**  
Alexandria, VA  
Permit No. 653



# Truth Can Be Stranger Than Fiction



- 8:59 am:** *The Dean is panicked.* The weather report calls for 105° on the first day of summer school.  
**NO PROBLEM:** Based on your improved Preventive Maintenance schedules, you're confident the HVAC systems will handle the heavy load.
- 9:48 am:** *Housing is frenzied.* They need a new dorm built ASAP to meet increased student enrollment.  
**NO PROBLEM:** You show them how to better utilize existing space to accommodate the fast growing student body.
- 10:17 am:** *The President wants* his house renovated before Alumni Weekend.  
**NO PROBLEM:** In an afternoon you can organize the work, line up the right labor, secure materials from inventory, and order the new furniture. And you can easily share the information with your in-house financial system.
- 11:34 am:** *The Controller is having a fit* over the total costs for contracted maintenance.  
**NO PROBLEM:** You can point to the first-ever reduction in total contracted maintenance costs — you used the right contractors for the right jobs.

Finally! A day where you can quickly and confidently respond to complaints with ideas and information that count. Fiction? It doesn't have to be. Make these conversations a reality with FM Enterprise from AssetWorks. A comprehensive solution for professionals like you

who want to more effectively use your physical assets — people, facilities, space, equipment and materials. Help your organization be more profitable — achieve measurable results, do more with less, and still provide high quality service to your customers.

Turn fiction into reality with FM Enterprise.™

Visit us at [www.assetworks.com](http://www.assetworks.com)



AssetWorks, Inc., formerly known as AEC Data Systems, Inc.

© 1998 AssetWorks, Inc., San Antonio, Texas

**New Utility  
Management Module!**  
Call today for  
more information.  
1-800-659-9001  
Ext. 30

## FEATURES

### 21 Maggie Kinnaman is Ready to Tackle the Challenges of Leading APPA

by Ruth E. Thaler-Carter

### 25 The Basic of High-Benefit Lighting Knowing More Means Paying Less

by Cary S. Mendelsohn, CLMC

### 33 The Metamorphosis of a Football Stadium

by Pieter J. van der Have

### 39 Defining Quality in Your Cleaning Operation

by James E. Sears

### 43 *First Source for Products* Helps You Select and Specify Products

by Susan Crain



APPA President Maggie Kinnaman

## Departments

From the Editor .....2

APPA Annual Report 1999 .....3

Executive Summary .....17

An APPA Report Card  
by E. Lander Medlin

Focus on Management .....19

Our Image  
by H. Val Peterson

Software and Solutions .....46

AutoCAD LT 98—Easy to Learn and Live with  
by Howard Millman

The Bookshelf .....48

Book Review Editor: John M. Casey, P.E.  
Reviewed in this issue:

• *Designing State Higher Education Systems  
for a New Century*

Coming Events .....56

Index of Advertisers .....56



# Facilities Manager

**PRESIDENT:** Maggie Kinnaman,  
University of Maryland/Baltimore

**EXECUTIVE VICE PRESIDENT:**  
E. Lander Medlin, Alexandria, Virginia

**EDITOR:** Steve Glazner

**ASSOCIATE EDITOR:** Medea Ranck

**ASSISTANT EDITOR:** Alycia Eck

**SUBSCRIPTIONS:** Cotrenia Aytch

**CREATIVE DIRECTION:**

Corporate Design

**PRINTING:** Corporate Press, Inc.

**EDITORIAL OFFICE:**

703-684-1446 ext. 236

**FAX:** 703-549-2772

**E-MAIL:** [steve@appa.org](mailto:steve@appa.org),

[medea@appa.org](mailto:medea@appa.org), [alycia@appa.org](mailto:alycia@appa.org),

[cotrenia@appa.org](mailto:cotrenia@appa.org)

**WEB:** [www.appa.org](http://www.appa.org)

**ADVERTISING:**

Gerry Van Treeck

Achieve Communications

3221 Prestwick Lane

Northbrook, Illinois 60062

Phone: 847-562-8633

Fax: 847-562-8634

E-mail: [gerryvt@concentric.net](mailto:gerryvt@concentric.net)

**Facilities Manager** (ISSN 0882-7249) is published six times a year (January, March, May, July, September, and November) Editorial contributions are welcome and should be sent to the address below.

Of APPA's annual membership dues, \$40 pays for the subscription to **Facilities Manager**. Additional annual subscriptions cost \$60 for APPA members, \$90 for non-members. For information on rates and deadlines for display advertising, telephone 847-562-8633 or 703-684-1446 ext. 238.

Copyright ©1999 by APPA: The Association of Higher Education Facilities Officers. Contents may not be reprinted or reproduced in any form without written permission. The opinions expressed are those of the authors and do not necessarily reflect the views of APPA. Editorial mention of companies or products is for informational purposes only and should not be construed as an endorsement, actual or implied, by the Association.

**POSTMASTER:** Send address changes to Facilities Manager, 1643 Prince Street, Alexandria, VA 22314-2818.

**Published by APPA:**  
The Association of Higher  
Education Facilities Officers  
1643 Prince Street  
Alexandria, VA 22314-2818

Global Partner in Learning

## From the Editor

Steve Glazner

### Congratulations to Rex Dillow Award Winners!



John G. (Jack) Dempsey



Gretchen Wesenberg

The Rex Dillow Award for Outstanding Article is an annual award given to the author of the best article published in *Facilities Manager* magazine during the previous calendar year. Eligible authors are those who are full-time employees of an APPA-member institution, and the award is selected by the Information Services Committee based on a rating scale.

The award is named for APPA Member Emeritus Rex Dillow, who contributed much to professionalize APPA's publications program as well as the Institute for Facilities Management. He served as editor-in-chief on the first two editions of APPA's *Facilities Management* manual, and he was a long-time editor of the *CAPPA Newsletter*.

For this year's award, there were 16 eligible articles published in 1998. The winning article, "The Design Partner," was written by John G. (Jack) Dempsey and Gretchen Wesenberg, who were both at the University of Rochester at the time of the article's publication. Jack has since started a new position at the University of Illinois at Urbana-Champaign, and Gretchen recently relocated to Missouri.

The article appeared in the March/April 1998 issue of *Facilities Manager*, whose theme was Collaboration and the Planning Design Construction Process.

Jack and Gretchen discussed the formation of "Reengineering Rochester Teams" to review all administrative functions throughout the university. One of these teams focused on the existing processes for selecting and retaining consultants, particularly those providing architectural and engineering services to the University of Rochester. You can read the full text of "The Design Partner" on APPANet at [http://www.appa.org/resources/Facilities\\_Manager/980304/article1.html](http://www.appa.org/resources/Facilities_Manager/980304/article1.html).

Congratulations to Jack Dempsey and Gretchen Wesenberg for receiving the 1999 Rex Dillow Award for Outstanding Article in *Facilities Manager*. Previous recipients of the Rex Dillow Award include:

- Douglas K. Christensen, 1987
- Harvey H. Kaiser, 1988
- William S. Mutch, 1989
- Teresa S. Hargett and Robert C. Osborn, 1990
- Paul Banks and Carolyn Harris, 1991
- James E. Christenson, 1992
- Mark Pastin, 1993
- Harvey H. Kaiser, 1994
- Walter Simpson, 1995
- Ksenia Jaroshevich and William Merck, 1996
- Walter Simpson, 1997
- William A. Daigneau, 1998



The following reports are from APPA's 1998-99 officers for activities and services provided this past year. The officers are listed by their 1998-99 titles.

## President's Report L. Joe Spoonemore

**W**hat a year! What an experience! What great friends! What an association APPA truly is!

Have you ever stepped on a treadmill and then turned it on to find that someone had left it on *high speed*? Naturally, to avoid being transitioned to the horizontal and ejected like a stuck board on a table saw, you begin running at top speed-immediately! This analogy holds true to this past

year with one very basic exception-the APPA organization has many people holding your hand and keeping you from being launched backwards into never-never land.

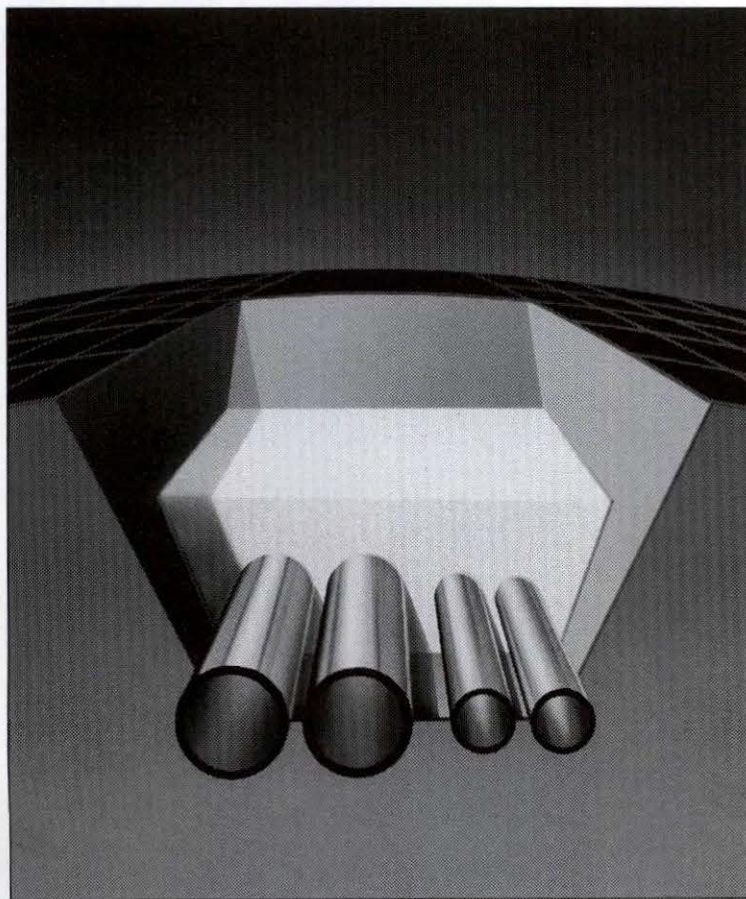
This past year we were once again blessed with a veteran team of VP's who took on an ambitious list of corporate and individual objectives and followed through beautifully. The details of their efforts can be found in their individual reports.

Following the transition from our former executive vice president, Wayne Leroy, to our new EVP, Lander Medlin, the APPA staff leapt to the challenge with true professionalism. Under Lander's tutelage we have not only survived, we have indeed prospered. At the beginning of my year

Lander and I came to an agreement on what the objectives for our year together should be. Her response to this agreement has been aggressive and appropriately responsive. In outline form we have worked tirelessly and successfully on the following objectives:

- Improve membership renewal rates
- Establish the Speaker's Bureau
- Seek out "hot topic" articles for *Facilities Manager*
- Formalize Strategic Partner alliances with PGMS, CSI, ACUHO-I, and CMD Group
- Nurture association and research-grant participation with the Departments of Energy and Education, and the EPA

*Continued on page 5*



## **Gilsulate® 500<sup>XR</sup>**

***Thermal Insulation and Protection System for Underground Pipes Operating at 35° F to 800° F***

- District Heating & Cooling
- Cogeneration
- Retrofit
- Hydrophobic
- Load Bearing
- Computerized Heat Transfer Calculations and Design Reviews
- Engineered Drawings

*For complete material and design assistance contact:*

**American Thermal Products, Inc.**  
3371 Bonita Beach Road  
Bonita Springs, FL 34134  
800-833-3881



# Explore...

## the breakthrough solution to construction documentation

**Introducing PerSpective™: the FIRST master  
database of performance criteria**

**E**xperience the fusion of the design-build project delivery method, performance specifying, and relational database technology.

**E**xperience the synergy when all members of the construction project team achieve optimal communication, coordination, and efficiency.



The Performance System for Project Teams

A CSI/DBIA JOINT VENTURE PRODUCT



The Construction  
Specifications  
Institute

DBIA



DESIGN-BUILD  
INSTITUTE OF AMERICA

(PEPP)

Name

Company

Occupation

Address

Telephone

Fax

E-mail address

**PerSpective...the cure for "performance" anxiety!**

CALL TODAY FOR YOUR

**FREE** Preview CD.

**877-893-0896**, OR VISIT

**www.PerSpectiveNet.com**

FAX OR MAIL THE ATTACHED COUPON

**404-876-0006**

**PerSpective™**

1175 PEACHTREE STREET  
100 COLONY SQUARE, SUITE 1900  
ATLANTA, GEORGIA 30361



*Continued from page 3*

- Conduct a membership survey
- Enhance APPA staff development, team building, and empowerment
- Develop the website's potential to improve feedback to the members including Board minutes and priorities of initiatives
- Maintain a comprehensive budget analysis, review the return on revenue for each project and establish a true "cash" reserve as dictated by Board action
- Establish a Grounds Task Force and a Trades Task Force. Assist in the refocus of the Small College Task Force and maintain the energy in the K-12 Task Force
- Assist Pete van der Have, Doug Christensen, Bill Middleton, and Bill Daigneau in the completion of the research/fellowship phase of the Professional Leadership Center

As if this list of EVP objectives was not enough, we also formalized our association "Priorities of Objectives" into a matrix of some specific projects with specific completion dates. This form of scheduling and work control has been very beneficial and also graphically demonstrated our collective progress.

When I began outlining this report I promised myself that it would not become "State-of-the-Unionesque" filled with boring minutia. However, the APPA team via its committees, officers, members, staff, and friends have accomplished much to be proud of. So, let's proceed by giving ourselves a few pats on the back.

Our **fiscal health** is better than I have personally ever known it. The fiscal year end net result was \$385,000 surplus, of which \$150,000 was put into cash reserves. We have taken advantage of attractive interest rates and commenced the refinancing of the Alexandria office. The term will be reduced from 30 years to 15 years,

the interest rate will fall from 8.55 to 7.4 percent, and we will eliminate the traumatic balloon features of the original contract. The expected savings to APPA is approximately \$800,000 in total cost of the mortgage loan. Our annual budget is supported largely on income from products and services other than membership dues. Our dues contribute just one-third of our total income. This graphically illustrates that we are not providing services strictly on the backs of our members.

Relative to our **communication** initiative we have done very well using the recently invigorated website as our centerpiece. We now have online registration, searchable Speaker's Bureau, meeting minutes, priorities of initiatives, surveys, and membership directory. When you couple the website with our e-mail discussion list, APPAinfo, and our suite of topical publications it is clear why APPA is considered to be a premier member-friendly association. Our recent publications on hot topics such as benchmarking, deregulation, privatization, and electric metering are first class efforts. We have also shown ourselves to be very responsive to emergent issues by notifying, on-line, the membership of such issues as the Federal Information Readiness and Disclosure Act. This heads-up was soon followed by Web and *Facilities Manager* articles on Y2K surveys appraisal and compliance recommendations.

More complex **constant improvement** issues often requires a team effort in the form of Task Force committees. The Task Force concept allows for the tapping of regional expertise and greater member involvement. We currently have Task Force activity with 1) Ground Staffing Guidelines, 2) Trades

Staffing Guidelines, 3) K-12 Support, and 4) Small College Support. We hope to see significant progress in the respective reports to the Board at the 1999 Conference.

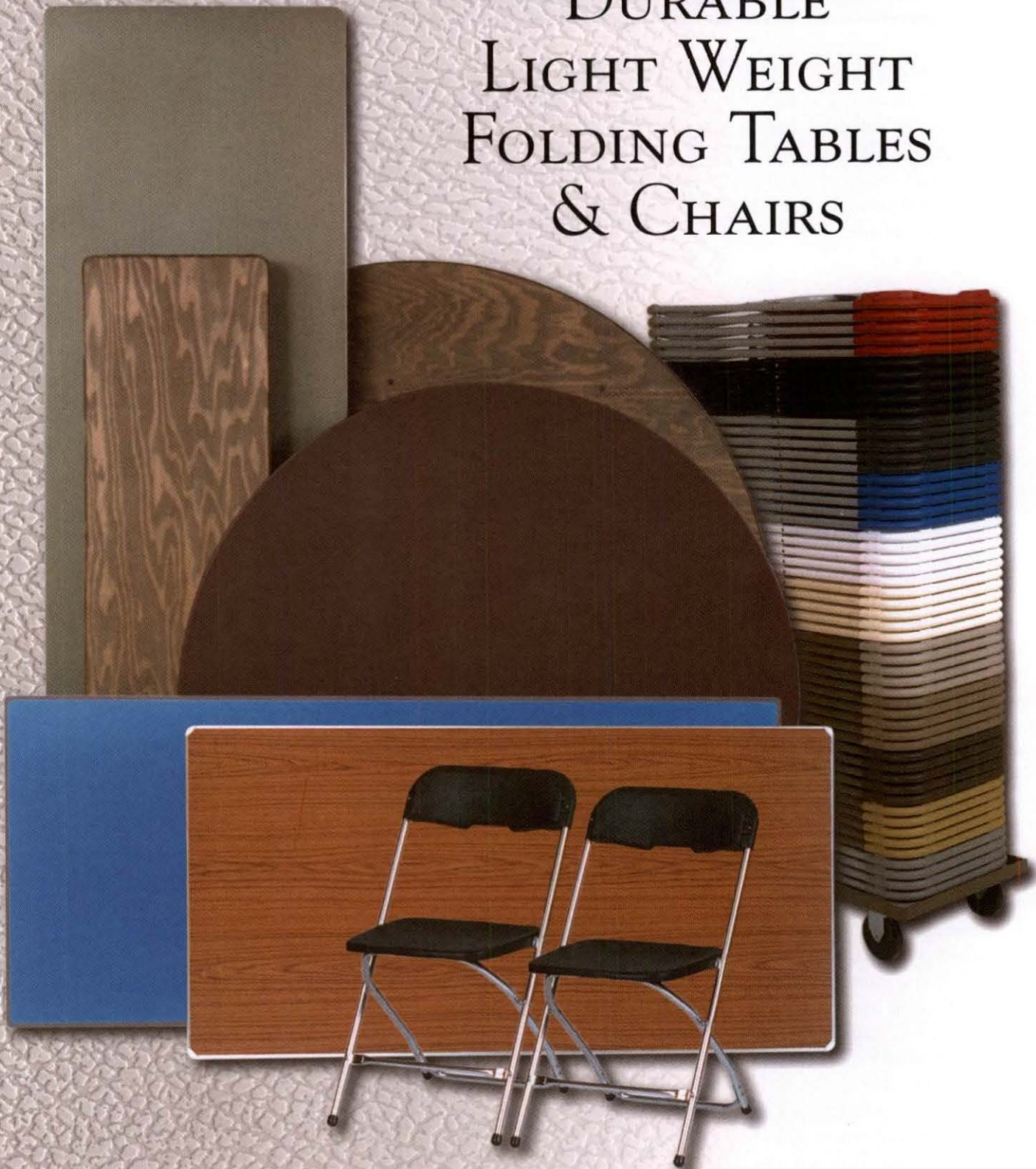
Yes, we have done well, but we cannot rest on our past performance. There are any number of other organizations who would welcome the opportunity to assume the leadership role in higher education facilities management. We can maintain our leadership position only by holding our **learning and research** initiatives. As evidenced by the overwhelming interest in attendance at our Institute and the welcome response to our Academy, it can be said that we are doing a great job of communicating lessons learned. To continue to expand the envelope, however, requires our complete attention to researching and defining avant-grade processes, materials, technologies, and organizational advances. To this end, we have assigned a blue-ribbon team to continuously identify research initiatives that can be developed in concert with the Fellowship capstone to our Academy series or fleshed out using strategic-partner/task force program.

As we begin the process of reviewing and updating our "strategic initiatives," I would hope that we are mindful of our **core values** and that we continue to build on the stable foundation prepared by our predecessors. As evidenced by the interest in APPA that has been shown on a global scale, we definitely have international name recognition. What this indicates is that our foundation has expanded and that we must be aggressive in making our services available and beneficial to all of our Global Partners while maintaining our service intensity with the founding membership. We have a

*Continued on page 7*



# DURABLE LIGHT WEIGHT FOLDING TABLES & CHAIRS



For a Free Catalog and Factory Direct Savings Call 1-800-333-2687



1001 North 3rd Street, Fort Smith, Arkansas 72901

Phone: 1-800-333-2687 or 501-783-2593 Fax: 501-783-7608

Email: [mccourt@mccourtmg.com](mailto:mccourt@mccourtmg.com) or visit our web site at <http://www.mccourtmg.com>



*Continued from page 5*

well-defined mission, a great staff, committed officers, and a supportive membership. **WE CAN DO IT!**

Now, as I accepted the torch from Pieter, I pass it on to Maggie with sincere thanks to the Board and all those individuals that have contributed to the success of my year as your President. Rest assured that as Immediate Past President, I will continue to work in support of Maggie, John, and the APPA membership.

## Immediate Past President's Report

Pieter J. van der Have

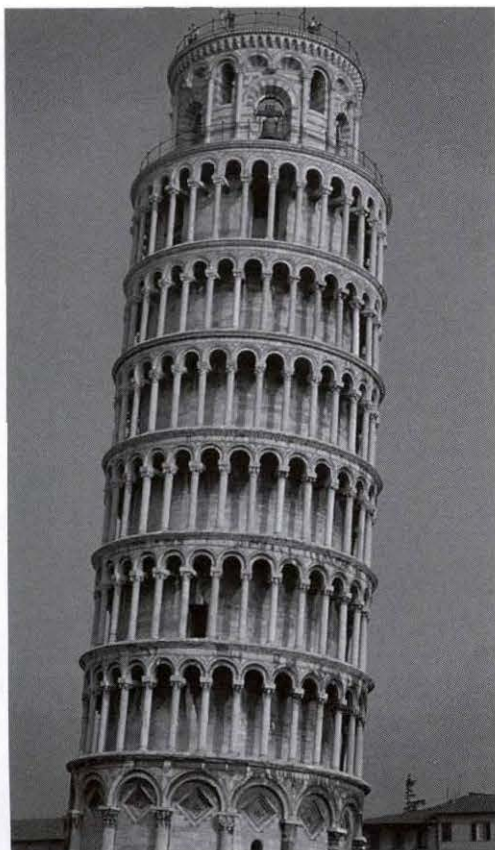
**A**s Immediate Past President, I had the pleasure of chairing the Nominating Committee

meeting during the mid-year Board Meeting. At previous times, I had heard tales of horror regarding blood and gore fairly flowing during some of those meetings. Each of the regions, understandably, had traditionally been supremely supportive of their own nominees. Frankly, I was not looking forward to my opportunity to chair one of these events. I had emotionally prepared myself for a session reminiscent of some of the my HR meetings here on campus.

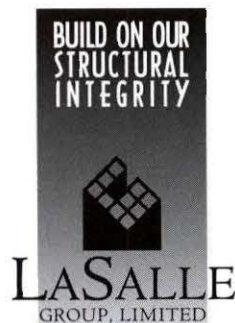
Blessed as that day was, things did not work out as I had feared. I credit that to several conditions, not all of which I can attribute to my own cleverness. First, not all regions had candidates for each of the positions. That obviously gave those regions some clear flexibility in exercising

their voting privileges. Second, several of the regions openly and willingly chose to support a strong candidate, regardless of point of origin. I particularly like that flexibility, since it tends to show that we are more interested in the success and strength of APPA rather than in our own regional egos.

Finally, I had decided earlier that since we wanted no more than two candidates for each position, we could avoid much conflict by giving each senior representative two votes. In this manner, each could vote for his/her own regional nominee, as well as for one other. By requiring each to vote for two nominees (where at least two existed), we allowed the chosen two to percolate to the top. The opportunity for conflict and argument, and the need for bargaining, had been



THEY HAD A WORLD CLASS ARCHITECT,  
A GLORIOUS PHYSICAL SITE, DOZENS OF CONTRACTORS,  
A LARGE BUDGET AND A RENOWNED ARTIST.  
AND LOOK WHAT HAPPENED! TO GET THE RESULTS YOU  
WANT FROM YOUR TEAM OF EXPERTS,  
LEAN ON LASALLE GROUP.



OWNER'S REPRESENTATION · THIRD PARTY PROJECT MANAGEMENT · DEVELOPMENT SERVICES

For more information contact us at: 2001 Killebrew Drive, Suite 308 Minneapolis, MN 55425 Call toll free 1-800-598-5567 or e-mail us at [ownersrep@lasallegrp.com](mailto:ownersrep@lasallegrp.com)



greatly reduced if not eliminated. As a result, that meeting became a pleasant memory of one of my final "official" acts as Immediate Past President.

My other major involvement has been with the Professional Leadership Center. Doug Christensen, Bill Daigneau, Bill Middleton, Lander Medlin, myself, and a small host of others, have been on several occasions to identify realistic strategies for this PLC. We are preparing a presentation to be laid before the Board in Cincinnati, one which hopefully allow us to achieve the goals presented to us by a previous Board. If we are successful, we will have laid the keystone to the leadership academy. We'll know more about that very soon.

This concludes my final report. Thanks for your friendship and your support! Long live APPA!

## President-Elect's Report Maggie Kinnaman

The 1998-99 year has been one filled with intense activity that can best be reviewed in the context of our Strategic Plan. Our vision, Global Partner in Learning, is a method for creating a responsive, flexible, streamlined service organization based on the wants and needs of those it serves. We cannot change the wind, but we can adjust the sails. And like it or not, the winds of change are blowing briskly; so adjust we must, and rapidly to maintain our course.

The two objectives of our plan are to:

- Increase meaningful participation and involvement of APPA stakeholders
- Provide all APPA stakeholders equal access (in terms of convenience, cost, time) to educational learning opportunities.

Following are the five current strategic initiatives and several examples of how we're addressing them. More information can be found in each of the vice presidents' reports.

### 1. Increase the effectiveness of education for APPA stakeholders. Ensure it is easily available and affordable.

- Both offerings of the newly reengineered Institute were attended by sell out crowds.
- The third in the series of Leadership Academy offerings, Professional Leadership Skills was rolled out in February at the University of Maryland, College Park. Four attendees from that class are now graduates of the Academy and are ready for the research project and upon completion the designation of fellow. A task force is busy working on these two items which should be finalized this coming fall.
- The APPA Annual Meeting has been refocused from technical topics to those of interest and concern to senior facilities officers; vice presidents, directors, and assistant directors.
- The PETS program has been reengineered and now resides as a speaker's bureau and resource toolkit for members who would like to set up locally sponsored workshops.
- Finally, a number of publications are now available to our members as educational resources. These include the bimonthly Facilities Manager, the recently published *Metering Guide for Managers* and *The Strategic Assessment Model*, and a forthcoming book on privatization/outourcing. These deliverables are all ways to connect our members to information that helps them better cope with the realities of their work environment.

### 2. Forge stronger links between the Regions and APPA.

- The APPA liaison program continues to receive strong support from the Regions. Having a staff liaison in the APPA office seems to have really helped our members get their needs, wants, and desires addressed by the office.
  - Based upon feedback from the Regions, all scholarship applications for both the Institute and the Academy will be handled directly by the Regions.
  - This year information dissemination to the Regions is being facilitated by using APPANet to post all Executive Committee, Board, and Committee minutes. Updates are posted within one month of the meeting and once approved electronically by the Board are posted on the website, [www.appa.org](http://www.appa.org). This initiative helps to ensure that our members are kept close to the pulse of what's happening in our association.
  - Another initiative that helps to keep the Regions informed is our initiatives list. This list of over 100 initiatives has been posted on APPANet in a newly developed section called Board Corner for review and retrieval by any Board member. The list identifies initiatives, deliverables toward achieving the initiative, responsible parties, and milestones for completion.
- ### 3. Expand the use of APPANet's electronic on-line services. Aggressively develop on-line services to improve access to and ensure responsiveness to all members.
- APPANet has been totally reengineered, shifting the focus from information about the Association to information related to our four core competencies; General



Administration; Operations & Maintenance; Energy & Utilities; and Planning, Design, & Construction. Each section will be populated with information, resources, tools and effective success stories and lessons learned, that can help keep our members closely in touch with the latest technology and approaches.

- In addition, APPANet is now the place to see what your Board is doing, correct your membership information, seek out information about another member, order books on-line, register on-line for meetings and workshops, and keep in touch with what our strategic partners are up to. Better use of the Internet is quickly becoming our key toward accomplishing many of our strategic initiatives.

#### **4. Promote awareness of APPA among senior officers of the institutions served by facilities management personnel.**

- Collaborative projects with other professional associations such as NACUBO are a wonderful way to introduce our senior officers to the challenges being faced by the facilities profession. We need to bring to the table not only challenges, but some potential solutions to those challenges. This is one way that our profession can be perceived as a partner in the business of higher education versus administrative overhead. We need to understand our facilities challenges within the greater context of higher education and bring solutions to our problems that do not detract from the mission of higher education.
- The newly structured Resource Reallocation Utility Strategic Assessment (RR-USA) Executive Briefing is a way to encourage a partnership between the senior

financial officer and the facilities officer as they explore options to deal with utility deregulation and the growing capital renewal backlog.

- Tools such as the evolving Strategic Assessment Model (SAM) will also help the facilities officer better communicate the facilities story to senior officers.

#### **5. Establish a process through which stakeholder needs can be identified and understood.**

- As a part of our Strategic Plan, the on-line INPUT form (ideas, notions, proposals, understandings, thoughts) was originally developed as a way to obtain ongoing feedback from our members. Although this form has not been utilized as envisioned, the concept of feedback is essential to the future health of any association. This year those APPA elected officials who visited Regional meetings did so with a mission in mind. We went to listen closely, document and act upon feedback from the Regions.
- A randomly selected membership survey was also conducted this year. The results will be invaluable as we lay out our initiatives for the upcoming year.
- In our original Strategic Planning document, APPA evolution was compared to evolution. It can never end. Stakeholders give INPUT to APPA which results in increased value, needs being met, expectations realized, value added to programs, data, information and knowledge focused on core competencies. As a result, APPA becomes the Association of Choice.

Personally, this past year has been a real challenge for me but also a great source of gratification. In my dual role as APPA's President-Elect and ERAPPA's Senior Regional Representative, I was fortunate enough to visit Corner

Brook, Newfoundland; Sydney, Brisbane, Darwin and Melbourne in Australia; the MAPPA meeting in Twin Cities, Minnesota; and the ER-APPA meeting in Providence, Rhode Island. As was indicated earlier, I went to these Regional meetings with a mission. I wanted to listen closely and summarize feedback from the Regions. In total, I came away from those meetings with over 50 items of INPUT to APPA, and I'm happy to report that all those items have been either addressed directly incorporated into programs for the future.

Each place that I visited reinforced my initial perception. In all locations, my hosts were hospitable and anxious to showcase what their Region or Chapter had accomplished. And let me say that those accomplishments are great. In addition, all were willing to share their best practices as well as lessons learned. In my travels, I've found that APPA, across the board, is an awesome association because it is made up of people who are incredibly talented, dedicated and committed to the facilities profession.

APPA involvement at the international level has also given a real appreciation for all that the 13 APPA staff are able to accomplish. Our first initiatives list developed last September had over 45 initiatives; the recently updated list has over 110 items, of which 60 have been completed. These 110 items are over and above all of the ongoing projects that APPA accomplishes, such as *Facilities Manager*, the Institute, the Leadership Academy, the Annual Meeting, Awards and Recognition, FMEP, finances, and last but certainly not least, member and customer service. If you've ever wondered what that APPA staff in Alexandria is up to, ask your Regional Representatives to share the initiatives list with you.



The recently conducted member survey indicates that members are looking for:

- High-quality information and education related to the present and future of the profession
- Access to knowledge that stems from quality research grounded in comprehensive data collection
- Information derived from effective/best practices in the industry

Already in the works on our initiatives list is a regionally-based Utility Deregulation Seminar, both an Outsourcing and Trades Staffing Guidelines publication, and an APPA/NACUBO collaborative workshop addressing budgeting and analysis for the facilities profession. In addition, we are finalizing the research component of the Leadership Academy and that should help us chart a future course for the facilities profession. Finally, we are striving to capture, document, and share effective practices with our members through the use of the Internet, publications, workshops, and annual meetings. Our Strategic Alliance Partners will be an invaluable asset as we strive to accomplish this goal. So our future course has been charted and much of the infrastructure laid.

In reviewing my original platform statement, I believe that it is still valid as the day it was crafted. Guided by our Strategic Plan, we must forge strong partnerships with Regions, Chapters, business partners and other associations so that we can realize our vision as a Global Partner in Learning and as the Association of Choice for facilities professionals. Success will be achieved as collaboration replaces redundancy and competition.

Facilities management professionals turn to their association of choice when seeking credible tools that effectively tell the facilities story and when gathering resources to help cope with

workplace realities. In response, we must be focused on the rapid development, delivery, marketing and continuous improvement of tools such as the SAM, FMEP, RR-USA, and resources such as Basic Tools for Facility Supervisors, the Institute for Facilities Management, and the Leadership Academy.

I will be honored to serve as your President in our quest for the credible tools and effective resources to best serve the needs of all of our members.

## Secretary-Treasurer's Report Howard A. Wells Jr.

The graphs on the next page depict APPA's finances for 1998-99. As you can see from these graphs of both revenues and expense, the association is healthy financially, reflecting a net surplus of \$385,333. Given the positive direction and solid financial footing over the past couple of years, we were able to place \$150,000 in our cash reserves account at the end of this fiscal year.

Many factors must come together to achieve such a positive result: 1) a membership that remains dedicated to the continuation of its professional association; 2) sell-out educational programs such as the Institute for Facilities Management and the Educational Conference & Annual Meeting in San Jose, California; 3) a magazine that remains so high in quality that suppliers flock to advertise; 4) good publications that are timely in their content and delivery; and 5) solid financial and administrative management of the association's assets.

The detailed income components stem from the following areas: 36.4% from membership dues; 25.7% from educational programs; 17.4% from publications, advertisement, and subscription sales; 15.8% from the San Jose Annual Meeting & Educational

Conference; 1.8% from the Department of Energy/Rebuild America Program grant activities; and 2.9% from other activities.

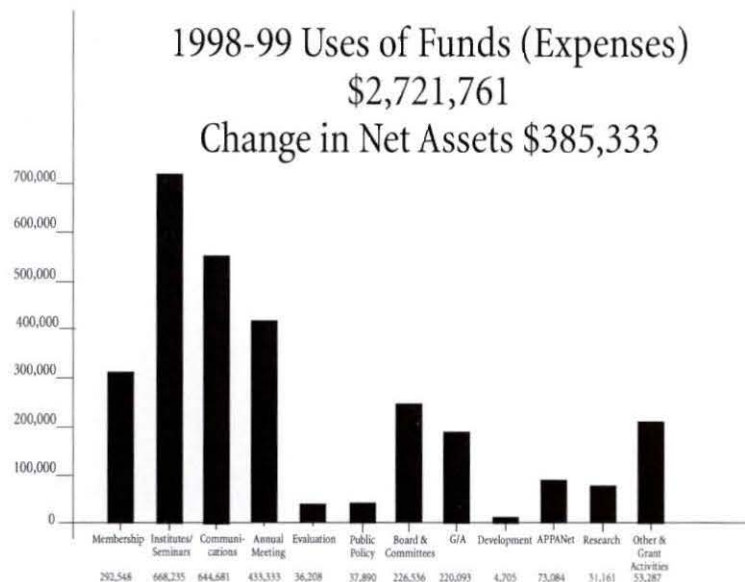
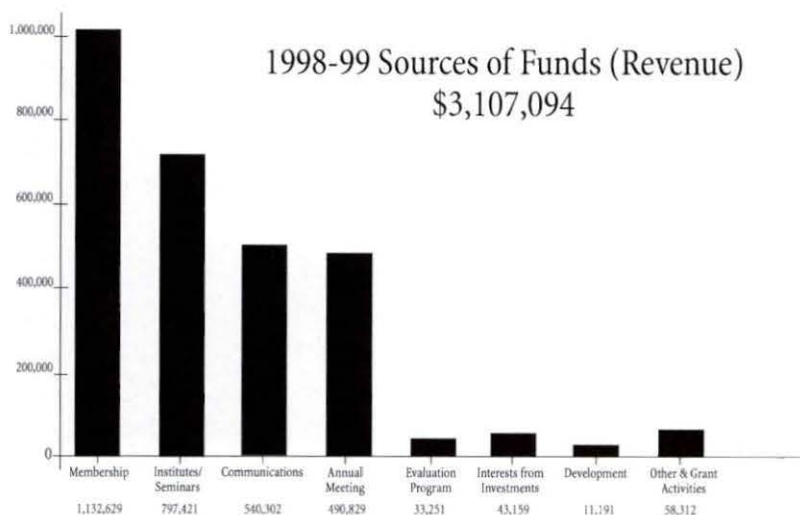
Membership dues supports the activities of retention and recruitment, governance, APPANet, *Facilities Manager* magazine, public policy, research and development, scholarships, and a significant portion of general operations. In summary, APPA's finances depend on one-third membership dues and two-thirds non-dues revenue generating activities such as education and publications. This places significant importance on a solid membership base that correspondingly supports other revenue generating activities. When all these factors come together as they did again this year, the results are a high degree of financial success.

In addition, I am pleased to report that the APPA staff explored a series of options for the possible "refinancing" of our headquarters building. The economy has been such that our window of opportunity occurred in early 1999. After the Board reviewed and approved several options this past February, APPA staff were able to secure a 15-year fixed rate mortgage at a 7.4 percent interest rate. With mortgage rates at their lowest, this alleviated the future requirement on our present 30-year note (27 years remained) with a 10-year balloon due in the year 2006 to have to refinance in a uncertain future market. This move will ultimately save the association approximately \$800,000 in total cost of the mortgage loan.

As I mentioned last year, we cannot rest on one or two years' success alone. APPA's financial weakness still lies in its operating ratios of which there are three that are most important: 1) total liabilities to fund balance; 2) expendable assets to



# APPA Annual Report 1999



## VP for Educational Programs Report

Gary Reynolds

Future meetings are planned for Fort Worth, Texas for July 16-18, 2000 with the theme *Spurring Change*, and Montreal, Quebec, Canada for July 22-24, 2001. The normal regional rotation would put the 2002 Annual Meeting in the Rocky Mountain region, which has tentatively recommended Denver as their first choice. However, we are having difficulty finding space in Denver on dates that are acceptable.

A major thrust of this year's Education Committee will be to fully explore options for the Annual Meeting that will increase its relevance to our membership. I would like to see us increase the average Annual Meeting attendance from around 500 to 600 or more.

At the fall Education Committee meeting there was considerable discussion about the target audience of the Annual Meeting. The committee concluded its deliberations with a consensus to target the vice president/director/associate director levels for the APPA Annual Meeting with the concept that the regional annual meetings would provide peer interaction and educational opportunities for assistant directors, managers, and supervisors. If the annual meeting truly focused at this level of target audience it will have major implications for meeting content, program content, vendors, etc.

## Institute for Facilities Management

Registration for the January 17-22, 1999 in Reno, Nevada ran at a record pace and was sold out before Christmas at a little over our target of 480 participants. Because of our increased tuition and the staff's excellent job at

*Continued on page 13*

liabilities; and 3) expendable fund balance to total expenses. We want to continue to pay close attention to these three operating ratios in order to stabilize the liquidity of our assets. The Board set this as a target for long term continuous improvement and this year's \$150,000 deposit into cash reserves, plus the refinancing of our building, moves us closer to our future targeted financial goals. We are pleased to report that APPA is moving in a positive direction to achieve

financial stability and still add significant value to the membership through the delivery of high quality programs, products, and services.

I thank all of you for the privilege of serving as Secretary-Treasurer. I know that Phil Cox will continue to provide support to Lander Medlin and Chong-Hie Choi, who deserve the credit for the exceptional financial success we enjoy.





HO BETTER TO SHOW YOU WAYS OF SAVING  
ELECTRICITY THAN THE PEOPLE WHO CREATED IT?



ENERGY EFFICIENCY PROGRAMS FOR BUSINESS CUSTOMERS

Aside from the limited effort it would take to screw in a lightbulb, our Energy Efficiency Programs can help you start saving energy immediately. We have a number of retrofit programs for existing equipment and systems.



**Boston Edison**

[www.bostonedison.com](http://www.bostonedison.com)

Rebate programs for premium efficient motors and new construction and replacement equipment programs. We'll even come to your office to show you all the other ways you can help the environment and save energy. Not to mention money. Just call 1-800-592-2000 (Press option 5).



*Continued from page 11*

keeping down expenses, we had a record net profit of \$209,000. This is 48 percent higher than any previous net profit. The Institute Subcommittee is continuing to look at the curriculum and debating the implementation of potential changes to further enhance the program.

## Leadership Program

The three programs being offered this year and their dates are shown below:

- Professional Effectiveness Skills (PES) Academy at University of Maryland/College Park—Feb. 7-12, 1999
- Individual Effectiveness Skill (IES) Academy at Stanford—Mar. 14-19, 1999
- Organizational Effective Skills (OES) Academy at Notre Dame—Apr. 11-16, 1999

Attendance is still a concern. The Professional Effectiveness Skills program offered in February had only 12 participants and lost \$41,133 including a penalty from the conference center. The Individual Effectiveness Skills program in March had 27 participants, was very well received and made a small profit of approximately \$5,500. The Organizational Skills program has 27 registrants and should at least break even.

One of the reasons the PES did not do well is that it is being marketed as the third program in a series of programs and that we have not graduated enough students through the other two programs to fill the third program. While we do have a number of graduates from the old Notre Dame Executive Institute, we do not have too many from the old Foundations of Leadership program or the IES program. Also, I believe that the third program has limited appeal to many of our members who do not have an

interest in the "higher" level issues that part of the PES curriculum. Perhaps we need to not offer the program again until we've created enough pent up demand from graduates of the first two programs to warrant offering it. We are also looking at a different location and time frame with the current thinking of moving the PES to sometime in June.

In addition to attending the three programs in order to graduate from the leadership program, the candidate must complete a creative component task such as presenting a paper at the annual meeting, writing an article for *Facilities Manager*, or completing research that can be archived in a Learning Resource Center. It is proposed that a person completing the three programs and

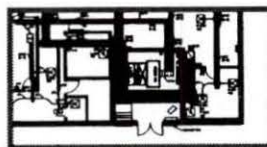
the creative component be granted the status of APPA Fellow.

Doug Christensen and Bill Daigneau are working on a governance structure for the Leadership Programs. Some of the members would be from outside APPA (and would cover their own expenses to participate) to ensure that the programs do not become inbred. As a task force they would be appointed by the President and would act within a limited charge and time frame. This is similar to how we redesigned the Institute with a task force and then handed the governance over to the Institute Subcommittee of the Education Committee. Final governance of the Leadership Programs has not been decided as the components of the Leadership Academies (Education Committee), research (Information

## Still thinking about that conversion to CAD?



**Let Indus Systems make it happen**



Administrators call Indus to convert their floor plans to CAD.  
Some call on Indus to update and maintain their CAD database.  
Others call Indus to install and train their staff on new CAFM systems.

***You call us about our free trial offer.***



**INDUS SYSTEMS, INC.**

2352 Main Street, Concord, MA 01742  
Tel: 978 / 461-0555 • Fax: 978 / 461-0649  
[www.indus-systems.com](http://www.indus-systems.com)



Services), and recognition (Professional Affairs) cross all VP lines.

## K-12 Initiative

I met with Dave Petersen who works at the Fairfax County (VA) Public Schools and is a member of the K-12 Task Force. The discussion centered on how the Education Committee could support that effort.

There are approximately 15,000 school districts in the country and there is a need to provide a lower cost information transfer process than the current Institute provides. We explored the idea of developing a one week "condensed" version of the program that would be based on only the absolutely essential issues. I asked

Dave to review the Institute curriculum and APPA's *Facilities Management* manual to identify a core curriculum. In addition we talked about the changes needed in the syllabus of the courses, identifying faculty, and developing a marketing strategy. This one-week program may also meet the needs of a number of members who operate in a similar functional way as K-12 school districts.

## PETS

The PETS program has now been moved onto APPANet and is identified as the Speakers Bureau. The first phase of development includes a speaker list, résumés, and other information pertinent to the speaker's presentation such as availability, etc. The second phase will include information on how to plan and put on a seminar. This model will allow our membership to have access to the information they need to organize a seminar at their convenience. There is a search engine where you pick from our four core competency areas and list search keywords. The site then returns a list of speakers from which to choose. The staff has done an outstanding job with this site. We now need to continue to add to the faculty and to promote it. The Education Committee will continue to work with the staff to administrator the site and to develop policies to ensure that it remains a quality service.

## International Seminars

At this point APPA is not offering any seminars at the national or international level. The international seminars have not been dropped and if appropriate topics arise a seminar can be put together fairly quickly. APPA recently participated in a Re-build America sponsored program in Ohio on electric deregulation. We are still exploring the possibility of an

## FINALLY, A CAPITAL IMPROVEMENT THAT WON'T COST YOU ANY CAPITAL.

True, you can't optimize your energy usage without spending money. But we can. We'll search your facility to find places where energy is being wasted. We'll show you how equipment upgrades can save you money, and how much. Then we can install those upgrades, using only the money you'll save. We guarantee it. For more information, call (713) 361-7625 or visit our website: [www.cesway.com](http://www.cesway.com)



©1999 CES|Way



# APPA Annual Report 1999

East Coast site for a similar APPA sponsored program.

## Summary

As noted at the Winter Board meeting, a major thrust of this year's Education Committee work will be to fully explore options for the Annual Meeting and to nurse the new Leadership Academy along to ensure full attendance and successful programs. Now that the redesign of the Institute is substantially complete it will be important to ensure that the Annual Meeting and the Leadership Academy (our other two major educational programs) continue to meet our membership's needs and are a relevant experience for our attendees. In addition the Education Committee will work with the staff to expand the new Speakers Bureau.

These past two years have seen an exciting and important change in APPA's educational offerings as every program has undergone significant review and improvement and entirely new offerings have been provided. And while much has been done, much remains. I very much appreciate the opportunity that I've had to be a part of this important and exciting effort.

## VP for Information Services Report

Joseph D. Rubertone

I wish to thank all of the committee for their enthusiasm, responsiveness, and commitment to our goals and projects. I feel it has been a very productive year!! I would be remiss not to recognize several longstanding members whose terms expired in June: Phil Cox, Cornell University (ERAPPA); Sue Kirkpatrick, University of Michigan (MAPPA); Duane Timmerman, University of Wyoming (RMAPP); and Larry Givens, University of Califor-

nia/Irvine (PCAPPA). On behalf of the entire APPA membership, thanks for all of your contributions.

I would also like to welcome our newest regional members, and I look forward to working with each of them: Joe Lalley, Cornell University (ERAPPA); Tom Dale, University of Saint Thomas (MAPPA); Mark Shively, University of Wyoming (RMA); and Chris McAlary, California State University/Pomona (PCAPPA).

The completely reformatted, biannual *Comparative Cost and Staffing Survey* was made available to membership in early June, with a requested return date of July 1999. The membership received written notification of the surveys availability, and may obtain a copy of the survey on APPANet, from Fax on Demand, or call the APPA office to request one.

You are all probably aware, this new survey instrument will once again attempt to capture square foot cost as accurately as possible. The committee has made significant efforts to insure the integrity of the survey information you received, and consequently released the survey later than anticipated. However, we feel much of that time can be recovered with improved processing of the completed data. The committee anticipates publication of its final report in September 1999.

Members are encouraged to complete the survey, and in an effort to increase participation, the committee has decided to offer several incentives. The incentives include a free copy of the published report, and a \$10 off coupon for any APPA publication, subscription, or educational program.

SOUTHERN BLEACHER COMPANY



## Southern Classics



Southern Bleacher offers the best stadiums in America. Our versatile designs meet any requirements of your facility — new or expanded, large or small. Superior materials reduce maintenance costs. Our dedication to excellence ensures the highest quality. Superior workmanship guarantees your solid investment. Rely on the professionals at Southern Bleacher for classic stadiums for all seasons.

*A Tradition of Excellence Since 1946*

**Southern**  
BLEACHER COMPANY

PO Box One, Graham, Texas 76450-9976  
Toll Free: (800)433-0912  
Tel: (940)549-0733 ■ Fax: (940)549-1365  
Website: [www.southernbleacher.com](http://www.southernbleacher.com)

STADIUMS GRANDSTANDS & BLEACHERS



The *Strategic Assessment Model* was identified last year as the committee's highest priority! As some of us may remember, this program has endured several false starts in the past. I am quite pleased to report that last year not only saw the completion of some unfinished business as it pertained to

the 1996 SAM Survey, but important progress toward the future.

The 1996 SAM survey was completed by 112 member institutions, however, formal interpretation of the benchmark data collected was never released to the respondents. Through the efforts of a consulting firm, Creative Concepts, Inc., the data was

finally scrubbed and formatted into a matrix that reflected the survey's original intent for the 18 benchmarks. This confidential data was then processed into a customized report for each respondent institution, and was mailed in the fall of 1998. The reports, which were well received, utilized the 18 core benchmarks of the survey and showed the individual institutions how they compared to the other 111 respondents.

The SAM project took on a bright, new direction this year! The Information Services Committee, after many hours of deliberation, strongly recommended to the Executive Committee, and the entire APPA Board, that a new SAM Task Force be formed. The general recommendation was to try to utilize as many members of the first two SAM Task Forces as possible, in order to capitalize on their experience and knowledge. All of the plans came to fruition with the appointment of a SAM Task Force in early April. Members Maggie Kinnaman, University of Maryland, Don J. Briselden, Phillips Exeter Academy, David A. Cain, Illinois State University, Douglas K. Christensen, Brigham Young University, Tom Harkenrider, Constructive Concepts, Inc., Laura Long, LTL Collaborative, L.L.C., William S. Rose, University of Alaska/Anchorage, and Joseph D. Rubertone, Quinnipiac College, met on May 4th and 5th, 1999, in Alexandria. They thoroughly reviewed all assumptions and concepts of the previous 18 benchmarks. The two days of meetings ended with each member agreeing to review portions of the survey, and communicate with each other by e-mail, until the Task Force meets again at the June meeting in Cincinnati. After having had the

## We listen...



## Then we work.

*Improving your estimating process...  
building solid project budgets...  
benchmarking performance... developing  
new costing solutions... analyzing building  
products' installed costs.*

To get a new perspective on your unique construction and facilities challenges or to request our brochure, call:

**1-800-448-8182**  
**www.rsmeans.com**

**RSMeans**  
A Construction Market  
Data Group Company

### Consulting Services Group

*"Construction Cost Estimating  
Know-How for North America"*

*Continued on page 52*



# Executive Summary

## An APPA Report Card

by E. Lander Medlin

**This past** winter, many of you took the time and effort to complete APPA's membership survey. Much like a ship's compass, the member feedback elicited through a survey helps ensure that we steer a direct course toward our members' desired destination. Since so many of you were generous enough to share your valuable insights and guidance, I'd like to share with you some of the key findings, as well as highlight APPA's progress in developing programs that are consistent with the interests you have expressed.

More than 1,500 APPA members, selected at random, received the survey. This group included U.S. and international members, public and private institutions, institutional representatives and associates. Overall, the survey garnered a highly respectable response rate of approximately 36 percent.

Given the wide diversity of characteristics among institutions of learning, it's difficult to create a profile of the "average" member, but here's what the demographics tell us about the individuals who collectively define APPA. The average respondent is male, aged 45-54, and has been a member of APPA for 11 years. Respondents are fairly split between public institutions (58 percent) and private (41 percent). Forty-five percent possess a master's degree or higher, and have an average of 19 years of facilities management experience.

**Lander Medlin is APPA's executive vice president. She can be reached at [lander@appa.org](mailto:lander@appa.org).**

This profile reflects the vast pool of expert knowledge and varied experience that APPA members represent. In other words, members are well equipped to foster the growth of the association and profession by reaching out to others and sharing this expertise. A strong, educated membership provides APPA with a solid foundation of resources.

Also encouraging were the ratings given APPA. Survey results across the board were positive, and illustrated a clear consistency between the needs and concerns of the membership and many of the programs, products, and services currently in place or under development. The survey also revealed some exciting additional areas for development.

Survey questions focused on four main areas:

- Assessing the effectiveness of existing programs, products, and services;
- Identifying the present needs of and expectations for APPA's services;
- Ensuring that APPA programs align with the direction of the profession; and
- Helping us to determine future growth opportunities for the association and the profession.

Overall, members scored APPA programs very high. Specifically, on a scale from 1 to 10, both publications and education scored an 8, which is considered a very high score. Furthermore, most members felt that APPA's programs represent their interests well, giving a score of 8.42.

The most reassuring finding was the clear indication that APPA members remain loyal and dedicated to the association for the high quality educational programs, networking opportunities, and access to specialized research, data,

and information about the profession. Indeed, as the overarching purpose of an association is to provide education, research, and recognition to its members, failure to meet these fundamental goals would indicate that not only is our ship off course—it's sinking!

The overall high ratings that you as members provided in your survey responses indicate great satisfaction with the association. With this high rating, however, come challenges to continue to ensure quality programs and products and to continuously improve the delivery of our services and responsiveness to members well into the future.

The survey also provided a vast amount of detailed information that will help us refine our programs and services to meet these challenges. With these goals in mind, I turn now to the details of members' interests as reflected in the survey.

The most frequently mentioned interest areas identified in the survey are: campus relations/customer service, maintenance management, supervisory training, space utilization, and emerging technologies. A number of activities are already under way to address these topics, thanks in large part to the Strategic Alliance Partnerships that APPA has put in place over the last few years. Based on your feedback, we will continue to expand and enhance our offerings in these areas, but here's a quick look at programs already in place or in development.

Both campus relations/customer service and supervisory training are addressed in the APPA Institute and the Professional Leadership Academy programs. The Institute is our twice-yearly, week-long, four-track education program that provides a comprehensive foundation in



facilities management skills. The Leadership Academy is a progressive series of three annual, one-week-long programs is designed to foster leadership, proactive thinking, and an integrated understanding and practice of facilities management with an institution.

APPA is also participating in the NACUBO-led National Consortium for Continuous Improvement, which will provide valuable information for improving the delivery of services to your campus customers. Further, APPA's recently published a primer on benchmarking includes APPA's strategic assessment model (SAM) survey results and conclusions. We are continuing our work in this areas by bringing together a group of your colleagues to identify additional performance indicators, metrics, and industry benchmarks.



## INFORMED\* CUSTODIAL STAFFING SOFTWARE

**In a friendly Microsoft Windows atmosphere:**

- Benchmark and justify your staffing level against national norms.
- Perform "what if" scenarios with the "click" of a button
- Establish balanced cleaning areas and multiple shift schedules.

From Jack C. Dudley, PE, APPA Member Emeritus, Editor and Co-author of the APPA: Association of Higher Education Facilities Officers publication *Custodial Staffing Guidelines for Educational Facilities*, first edition and Co-author of the second edition. Using methods developed for the book, the software has been in successful use for 5 years at a large number of educational institutions.

Several models are available starting at:

**\$179**

Call or Write Jack for Details.

\* The Institute for Facilities Operations Research and Management Educational Development

5335 South Lakeshore Drive  
Racine, Wisconsin 53403  
(414) 552-8966

We are addressing maintenance management and its three subcomponents (technical trades, custodial operations, and grounds maintenance), through several activities. First, the recently published revised edition of the *Custodial Staffing Guidelines*, which has received rave reviews by your colleagues. Second, APPA has established a Grounds Staffing Guidelines Task Force in partnership with the Professional Grounds Management Society (PGMS—one of APPA's five Strategic Alliance Partners) to develop and publish a similar tool for grounds maintenance staffing. Finally, we have established a Technical Trades Costs and Staffing Guidelines Task Force in conjunction with the CMD Group/R.S. Means (another Strategic Alliance Partner). The ultimate outcome of these efforts will be a trilogy of staffing guidelines for these core maintenance management responsibilities.

The cornerstone of APPA's educational programs, the Institute, mentioned previously, is our top venue for addressing emerging technologies issues. A wide variety of elective sessions allows us to adapt it quickly to reflect new trends and emerging technologies as they arise. While the Institute provides a respectable foundation, clearly there is a desire for additional resources. We will continue to explore new ways for providing this information.

Other frequently mentioned topics include: utilities and energy management (including utilities deregulation), strategic planning, deferred maintenance, life-cycle costing, and privatization and outsourcing. We are delighted to discover that, again, these issues are also well aligned with initiatives already under way, including:

1. Series of state-based Executive Briefings on utilities strategic assessments in partnership with DOE/Rebuild America, NACUBO, and

the Electric Power Research Institute (EPRI) focusing

2. Several utilities-related publications are also near completion through cooperative efforts with the groups named above, as well as IFMA.

3. A host of resources are in the works to address various financial issues. Specifically, we are working with NACUBO to revise *Managing the Facilities Portfolio*, an essential reference that bridges the concerns of both business officers and facilities officer.

4. We have also begun work with Vanderweil Facility Advisors to conduct ongoing surveys focusing on capital renewal and deferred maintenance. This much-needed continuous stream of data will enhance efforts to understand and control this serious issue.

5. In partnership with NACUBO, APPA is presently researching a new publication on privatization and outsourcing to present data on the use of outsourcing in higher education.

There are many, many more new programs, products, and services in development or investigation. Thanks to your input, we now have solid confirmation for their need, and plenty of material for exploring additional offerings.

I hope that as members you are as pleased with these results as I am. Also, I urge you to remember that member feedback is a continuous process. Please continue to provide APPA with your thoughts and suggestions on the types of programs and services that best suit your needs. An association is nothing more than a collection of individuals working together—much like a ship's crew. I encourage you to be a crew member rather than a passenger and keep your ideas coming. Working together will ensure that we steer a true course through the new millennium. 🏰



## Our Image

by H. Val Peterson

One of the definitions of "image" found in the dictionary is, "a mental conception held in common by members of a group and symbolic of a basic attitude or orientation."

This definition seems a bit "academic" to me so I made-up my own: "how you or it are seen by others." In some vocations or professions, image is highly critical. In some businesses and corporations, image means survival or failure. In some institutions of higher education, image is carefully crafted and managed.

Let's bring the concept of image closer to home. What is your own personal image? What is the image of the facilities management organization at your institution? What image does your institution portray based upon the condition and appearance of the campus?

For those of us who work within a facilities management organization at a college or university, these three images are certainly interrelated and are worthy of our close attention.

**Individual Image.** The image of any organization is a direct reflection of its' employees. From the standpoint of our customers, the facilities management image is us. Every employee in the organization contributes to the overall image of the department. A

*Val Peterson is director of facilities management at Arizona State University, Tempe, Arizona, and a past APPA President. He can be reached at [valpeterson@asu.edu](mailto:valpeterson@asu.edu).*

positive personal image is created by having a friendly demeanor and a firm voice, by standing tall and walking proudly; by eye contact and a firm handshake; by maintaining honesty and integrity.

People tend to look at little things in developing their first impression about individuals. In the long run, however, people may doubt what individuals say, but they believe what



they do. It's the old adage, "actions speak louder than words." The right image fosters not only a positive reaction from customers but creates greater employee self-esteem and productivity. Every facilities management organization has scores of competent, hard-working and dedicated employees. Without the efforts of its employees, the facilities management organization is nothing.

Without people there can be no image. It's an empty reflection.

What is your own personal image. Are you viewed as being responsible and responsive? Are you competent and consistent? Are you firm but fair? For some, your organization will be judged by the image you personally present to the customer.

**Departmental Image.** It might be assumed that facilities managers are desirous that the image of their department be a good one. Most managers are anxiously engaged in the continual improvement of this image. To this end, it is important for the various customers to know of facilities-related happenings around them that could affect their own jobs or organizations. It's always a good idea to share the accomplishments, the good works, and the recognition of individual teams and work units within the facilities group. These types of communications can best be done through a departmental newsletter, a bulletin that is distributed to a broad cross section of the campus, articles published in the

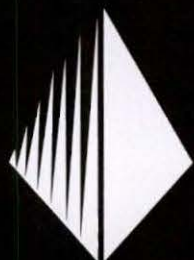
campus newsletter or newspaper, and one-on-one meetings and conversations with customers. These actions all support the creation and preservation of a favorable image.

Positive efforts of the department, however, can be negated if some of the lesser details are not handled properly. It might be well to ask yourself the following questions:

How are your phones being answered? Does someone pick up a



2200 Clarendon Boulevard  
Arlington, VA 22201  
703/741-7000



## ANADAC Facilities Group

Construction Management,  
Facilities Engineering  
and Facilities  
Management Consultants

- Project Management
- Feasibility Studies
- Design Reviews
- Value Engineering
- Life Cycle Costing
- Relocation Management
- Inspection & Testing
- Furniture Procurement
- Cost Estimating

Additional  
Offices In:  
Richmond, VA  
Virginia Beach, VA  
Boston, MA

call by the third ring? Do employees give their names when answering, so that callers feel that they're dealing with a real person instead of an institution?

How are visitors greeted when they visit the department? Are they acknowledged promptly, or are they made to wait until someone gets good and ready to approach them? If the receptionist is on the phone, does he or she tell the visitor, "I'll be with you in a moment?"

When greeting visitors or customers, do your employees convey positive body language? Are they friendly? Do they smile? Studies show that the most important thing in determining whether you create a favorable impression is how often you smile.

Is someone responsible for ensuring that all communications—letters, memos, and newsletters—don't go out with misspellings or grammatical errors? Someone once said, "you are what you mail."

Do requests for service get acknowledged? Is a date given the customer when the service will take place? If there was a delay, was it communicated? If it is not obvious that the service has been completed, is the customer informed that the work has been done? Is there follow-up at the end of the job to make sure the service was satisfactory? These are common courtesies extended to customers in the private sector. If we are not doing these things, we may be inviting the privatization of our own organizations.

The answer to all these questions (and many more) are indicators of how customer service is viewed within your organization. Even at institutions of higher education, good service is expected—and needed. And good service equates to a positive image.

**Institutional Image.** We are all aware of the Carnegie Foundation study that confirmed the feeling of most facilities managers that the

work performed by the facilities management organization has a direct bearing upon the image of the college or university. Students and parents look at the condition of the buildings and grounds when selecting an institution for matriculation. Have you looked closely at your buildings and grounds recently? Do the buildings show excessive signs of wear and tear? Do the lawns look shaggy and the shrubbery neglected? Are the sidewalks broken and cracked? Are campus signs hard to understand and in poor repair? If so, that gives a negative image of the institution. The physical presence of the campus tends to serve as the "entrance gate" for critical spectators and influential constituencies from which an initial impression is generated and an image firmly entrenched. It is from this group that the institution hopes to attract students, faculty and staff as well as philanthropic contributions, gifts and endowments. A well managed and maintained physical environment offers an inviting welcome sign for all to see and enjoy. It is important to understand that looks do matter, and that first impressions in particular matter a great deal.

Institutions, like people, are judged by their appearance. If the appearance is neat, clean and attractive, then the judgment is positive. If, on the other hand, the appearance is shabby, dirty and unkempt, the judgement will be negative.

There is an old truism that goes something like, "you only get one chance to make a first impression." This saying applies to individuals, to organizations and to institutions. Images are developed from first impressions. It may take months and even years to change an image formed in a few short seconds as a first impression.

All people, organizations, and institutions have an image. What is yours? 🏢





Ann Grillo, photographer

# Maggie Kinnaman

## is Ready to Tackle the Challenges of Leading APPA

By Ruth E. Thaler-Carter

**B**ecause of her active and longtime involvement with APPA and the Eastern Region to date, profiling the association's new President might almost seem unnecessary, but Margaret Patricia "Maggie" Kinnaman always has something new to offer APPA members and the facilities management profession.

Kinnaman, 52, is director of business administration and support services of the Office of Facilities Management at the University of Maryland, Baltimore in downtown Baltimore, Maryland. The sprawling urban campus that is her territory was founded in 1807 and encompasses 50 buildings on 24.4 acres, or 4.34 million gross square feet, 2 million of which is parking garages.

The campus' fall 1998 student enrollment was 5,703. Kinnaman's division has 367 employees in three departments—Architecture, Engineering & Construction; Business Administration & Support Services; and Operations & Maintenance—with responsibility for 40 cost centers. In FY98, Kinnaman's division involved 2.695 million state-supported gross square feet of non-reimbursable maintenance.

### Getting into the Profession

Kinnaman entered the facilities management profession "totally by chance," she said, when her first marriage, when she was very young, to a submariner, took her to Sardinia. She had always worked, and "the only thing to do there was to work for the Navy," she recalled; she snagged a position in

the public works department of the Navy. A few years later, she came back to Maryland where her family was located and applied for several jobs, one at the University of Maryland, College Park. "Little did I know that my public works stint in the Navy would hold me in good stead here," she said.

Her Navy experience, nontraditional though it was, led Kinnaman to a position as manager of administrative services in the Department of Physical Plant at the University of Maryland, College Park, which she held from November 1980 through September 1985. She took courses at night and got her degree in four years while working full time.

At the College Park campus, Kinnaman managed a 25-person unit that was responsible for providing 680 departmental employees with administrative support, including personnel, timekeeping and payroll, budget development, financial services and risk management. She developed a ten-year history of facilities funding in relation to campus growth, which was a key success factor in the physical plant department's ability to compete effectively for scarce campus resources. She also developed an insurance recovery program for building losses that collected more than \$150,000 each year, and a consolidated billing packet for all facilities services for self-support clients on campus.

When her boss at the University of Maryland, College Park campus moved to the Baltimore campus, he told Kinnaman to call him when she got her degree. "Literally when I graduated, there was an assistant director's opening at the University of Maryland, Baltimore and I applied for it." She started as assistant director of the Office of Facilities Management in October 1985.

*Ruth Thaler-Carter is an award-winning freelance writer/editor based in Baltimore, Maryland, who has written often for Facilities Manager. She can be reached at [rthaler@aol.com](mailto:rthaler@aol.com).*



Nailing the job led her to pursue her MGA through a year-long weekend accelerated master's program that she said was "extremely intensive."

Kinnaman moved up to her current position of director of business administration and support services with the Facilities Management Division in February 1987 after two years as assistant director. She reports to the assistant vice president for facilities management, Robert M. Rowan.

### Professional Accomplishments

Kinnaman oversees a 13-person department tasked with providing 400 facilities management employees with administrative services, which include developing an annual budget of \$25 million; financial tracking and analysis; cost accounting; construction project accounting; personnel, payroll and time keeping services; and automation support. The division also acts as the billing agent for all reimbursable facilities management services such as maintenance, housekeeping, utilities, and construction.

During her career she has managed the campus programs of mail services, fleet administration and insurance and managed the campus telecommunications program for the three years that it was aligned under facilities management during a campus-wide telecommunications replacement project.

Despite a 40 percent reduction in staff over the past five years, Kinnaman's division has improved and expanded services, she said. Accomplishments include developing a strategic plan; implementing performance standards; collecting benchmarking data; developing, delivering, and analyzing a customer service survey; forming internal and external customer advisory groups; implementing continuous improvement processes to include data collection and peer reviews; and developing a divisional Orientation Guide and Facilities Management Annual Report. "Both of these latter documents serve as models of excellence for other administrative units on campus," Kinnaman said.

Kinnaman also established a new facilities program that has resulted in \$3.7 million in new funding over the past three years, to support campus growth of 540,000 GSF. She established a winter and summer coupon payment arrangement

with utility vendors to avoid more than \$425,000 in late fees over the past four years. She presented this solution to the State of Maryland and worked with them to develop the ultimate solution: electronic payment of utility bills statewide. She implemented a ten-year Centrex C&P Telecommunications contract campus wide, including establishing a billing structure and coordinating a 4,500-station telephone replacement project.

Kinnaman also has conducted a needs assessment and implementation strategy for three major automation projects within facilities management: a work order system, project accounting system, and automated timekeeping system. "These systems enable us to change our focus from one of data collection to one of information dissemination," she said.

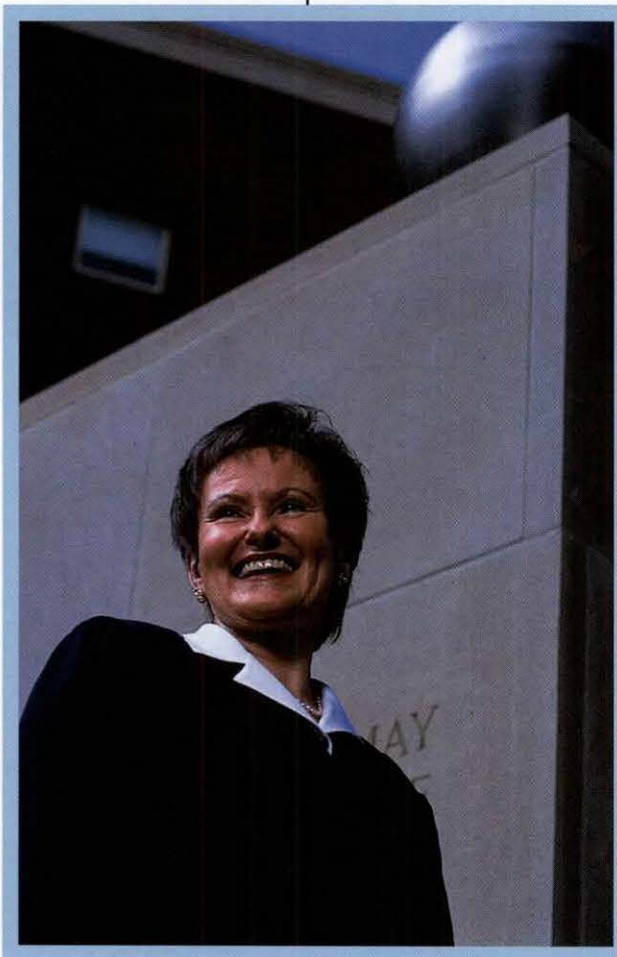
Kinnaman also takes pride in having reengineered the campus mail delivery system to focus on performance standards identified by her division's customers—quality, timeliness, and reliability. "The operation changed its focus from a sorting operation to one that provides twice-a-day delivery to more than 200 locations," she said. "All of this was accomplished within existing resources."

She also adapted the APPA Supervisory Skills program to UMB and delivered this seven-module supervisory training program to 45 supervisors within the Facilities Management Division. Currently, Kinnaman's new

project is as Y2K risk manager for the campus. This challenge will keep her hopping through the end of the year.

### And She Has a Personal Life

Kinnaman is married to John Kinnaman III, who retired recently from the National Security Agency (NSA) after about 36 years, including 20 years spent overseas. "After attending the Cortina Olympics, he became an avid collector and supporter of the Olympics, and has created an entire new career from that interest," Kinnaman said. "He has an Olympic memorabilia business at Savage Mills [a former mill site outside Baltimore that has been converted into one of the largest antique centers on the East Coast], where he also is head of security, and puts together an international show for the Olympics."





The Kinnamans have no children of their own but John has two, both grown; one works at Walt Disney World and the other is a computer professional.

Kinnaman started down the road to her MGA program only three months after she and John got married. "My husband was a saint," she said of the demanding routine she faced in settling into her new job in Baltimore while completing her master's degree.

Kinnaman's work and APPA responsibilities leave little time to relax: "My association work is like a second job." She does create time to enjoy her family—six nieces and nephews "all over the place," the children of her three brothers, and an aunt and uncle in Germany. She enjoys travel, cooking, and entertaining; and she and John are focused on the simultaneous fun and hard work of settling into a new house.

### Getting Involved in APPA

Maggie Kinnaman has been in APPA and ERAPPA "at some level" since 1980, including 15 years at the Board level and serving as the first woman president of the Eastern Region.

"If learning is pushing the envelope, then this envelope is ready to pop," she said of all she has learned through her dedicated involvement in APPA. Getting involved in her professional organization "forced me in a very positive way to learn and become confident," Kinnaman said. "It has tested and expanded my levels of competence and has benefited both me as an

individual and my institution. It has been invaluable in the resources and tools that I can bring to the job, and the networking has been fantastic."

Kinnaman has retained her strong affection for and commitment to the regional structure of APPA. "All governance of APPA is made up of our regions, so it is essential that the regions and the international APPA work together," she said. "The major thing I've done as I visited the regions and brought back input is to formalize the contributions from our regions. We need feedback from both regions and members on a regular basis. That's very important, because it involves supporting mid-level management." She intends to use the World Wide Web to "connect to the heart of what's going on in APPA and add value to the strategic plan by enhancing the ability of our regions and members to interact with the APPA office."



As she presented in her platform for President-Elect, key concerns for Kinnaman as she prepares to take on the APPA presidency include the association's evolving strategic plan and the Strategic Assessment Model (SAM). "My platform is as valid now as it was then," she said.

In terms of the strategic plan, "The Board of Directors is going to look at the strategic plan again," she said. "It will be a major piece on my plate. It was always intended to be a snapshot in time and reviewed periodically. We plan to coalesce the different documents into one cohesive whole. We'll look at all the existing documents, although the mission will not change—that's pretty sound. Some of the objectives may change due to the fact that we've made major strides in addressing several of those. The Board will look at the future of the facilities profession, where it's going, the future roles of

facilities managers, and how to deal with driving forces within the profession."

In these efforts, "I will be guided by the work done by Bill Daigneau on the future of the association and the driving forces affecting our profession," she said. "We will coalesce where the profession is going with the plan for the association, because, to become the association of choice, we should respond to the profession itself. We must address information technology, scarce resources, social change, the role of government and environmental issues."

Kinnaman plans to get input on all aspects of the plan from APPA's seven regions, which are especially important to her as the segment of the association where she got her start in this aspect of professional leadership.

In terms of the Strategic Assessment Model, Kinnaman said this effort is vital to the continued strength of APPA and its profession. "Poor SAM has been four years in the making, but a newly identified task force now is hypercharged," she said. "I have dedicated half of my discretionary funds to this project and I hope for continued support so that we can conduct more sessions, roll it out for regional assessment and approval, and make it part of member services." She chairs the current SAM Task Force and contributed to the new APPA publication, *The Strategic Assessment Model*.

According to Kinnaman, "SAM looks at how we work with the plan. Typically, it has focused on education, association research, and recognition. We've always been strong in education, and we pack the house at every session of the APPA



Institute for Facilities Management. Through SAM, we will further develop the Professional Leadership Academy, which has three tiers of skills development—individual, organizational, and professional,” Kinnaman said.

SAM also will enhance APPA's research activities, she noted. “The concept behind SAM,” Kinnaman said, “is to look at those performance indicators that reflect overall organizational effectiveness. SAM uses the Kaplan-Norton balanced scorecard framework to show how high-producing organizations look. SAM looks at an organization's strategy, finances, internal business processes, ability to learn and grow, and customer satisfaction—the major areas for gauging organizational effectiveness.”

As APPA President, Kinnaman also intends to look at APPA's four core competencies in identifying specific performance indicators. Those four areas are general administration and management; operations and maintenance; energy and utilities; and planning, design, and construction. “We will be creating ‘pars for the profession,’ as in golf,” she said. We envision 100+ organizations who will participate in a survey that will validate the levels of effectiveness over time. The model is a strategic tool that can be used by facilities administrators to initiate a benchmarking process. You can apply best practices toward improvement and do a better job of dealing with the realities of the profession. SAM will give APPA members a business tool to facilitate discussion with campus decision makers.”

One of Kinnaman's great joys in APPA has been her involvement with the APPA Institute. “It has been thoroughly gratifying,” she said. “I'd also like to get more involved with the Leadership Academy. These programs are typical of the wonderful opportunities offered by APPA for employees in facilities management.”

### Dealing with the Guys

Although she would like to see more members of her gender in the profession, being one of only a few women in education facilities management has not fazed Kinnaman much, due in great measure to her upbringing. “As the oldest of four children with three brothers, being in a male-dominated profession has not been a real transition for me,” she said. “I got used to standing up for myself early. My philosophy

always has been that excellence eventually bubbles to the top. And if women have to persevere a little longer and work a little harder, so be it.”

To help improve the balance within the profession, Kinnaman would like to see a mentoring program for all. “Ironically, men in the association have said they need mentors, too,” she noted. “I see them embracing diversity. I haven't had to deal with anyone in APPA as insensitive lugs, although we do need more mentoring to bring more women into the profession and the association.” She urged other women interested in this field of work to “persevere, speak out, and be confident.”

### Looking to the Future

While her current focus is on the immediate future of her presidency, Kinnaman also is looking further ahead. She wants to promote APPA's vision to be the “association of choice and a global partner in learning,” for the profession. To achieve such a lofty goal, she expects the association to make major progress on its list of initiatives. “Our initiatives have grown from 45 last fall to 110,” she said. “These are significant pieces of work that will be major additions to the toolbox of skills that APPA brings to our members.”

For the facilities management profession to be “up to snuff in the future,” she said, “we will have to fulfill new roles. We've got to bring many resources to the table of higher education. I can see it on our own campus—our publics are urging us to become technologists, experts, and partners. We need to step up to the plate and embrace the opportunity. APPA can be


immensely helpful by providing the networking, resources, and tools needed to cope with our evolving roles.

In terms of her own career, Kinnaman continues to be challenged in her current position as director. “The challenges are numerous in an environment that is ever-changing.” She plans to “stay apprised of progress in APPA and shepherd SAM, the Institute and the Leadership Academy into the future even after her presidency. “I'd like to see the research and fellow activity of the Professional Leadership Center mature and present our members with the opportunity to contribute to the body of knowledge and give back to the facilities management profession. 🏠



*Kinnaman confers with Bob Rowan, AVP for FM, left, and Pat Tate, Director of O&M.*





# THE BASICS OF HIGH-BENEFIT LIGHTING

KNOWING MORE MEANS PAYING LESS

by Cary S. Mendelsohn, CLMC

**F**our hundred years ago, during the Renaissance, the leading intellectuals were proficient in a variety of fields. Today, we apply the term “Renaissance man” or “Renaissance woman” to those rare individuals who know a lot about a lot. Who better to hold that title than the contemporary facilities manager? Consider the various fields in which the facilities manager must be proficient: plumbing, heating, air conditioning, electricity, structures, digital controls, fire safety, security, team building, insurance, contracts, human resources management, customer relations, budgeting, scheduling...it doesn't stop.

It's absolutely impossible for facilities managers to be genuinely expert at each and every endeavor they're required to pursue. Nor does anyone have any right to expect that facilities manager will devote 100 percent full time and attention to each undertaking. After all, they cannot be expected to put in thirty hours a day, job descriptions notwithstanding. Thus, while facilities managers may be mindful of the dictum that “good enough seldom is,” they sometimes have to rely on expedience to meet their objectives.

In many cases, expedient tactics work well. The various customers are kept happy, and costs are kept under control. In some cases, however, expedients fail to deliver the full range of benefits otherwise attainable; benefits so substantial they could transform a facilities manager from merely a Renaissance person to an absolute, verifiable, 24-karat genius.

---

*Cary Mendelsohn is chairman of the National Lighting Bureau, Silver Spring, Maryland. He can be reached at [info@nlb.org](mailto:info@nlb.org).*

The issue is electric illumination—lighting. If you're the typical facilities manager, you regard lighting as an expense. It consumes energy whenever it is activated and, indoors, it contributes to heat gains, requiring the consumption of cooling energy. And it needs maintenance, too, plus space to store spare lamps and equipment. You know you wouldn't be better off without it, but not having it certainly would be of benefit to the bottom line. So, when it comes time to consider the potential of a lighting system upgrade, your marching order might be delivered as, “Give me some ideas about a new system that will consume less energy, produce less heat indoors, and that will be less costly to maintain.” But that's the wrong approach.

To develop a truly effective, truly bottom-line oriented lighting upgrade spec, you have to adopt a Renaissance-type approach to the topic. Step one is to learn more. This does not mean that you have to add lighting systems design to your list of competencies. You only need to know what lighting is used for within and around your school or campus, consider the impacts of more effective lighting, and, as applicable, calculate the value of the benefits. By doing so, you will quickly come to realize that even so-so lighting is less costly than no lighting, and that High-Benefit Lighting® is the least expensive of all.

High-Benefit Lighting is a term coined by the National Lighting Bureau, a not-for-profit information/education organization established in 1976, and funded by trade and professional associations, manufacturers, and agencies of the

*Continued on page 27*



# HVACR Multimedia Technical Training



COST-EFFECTIVE TRAINING SOLUTION

## Refrigeration in Air-Conditioning

*(Disponible en español)*

## Pneumatic Thermostats

## Electrical Troubleshooting

*New for '99!*

## Residential Energy Systems

## Motors & Drives

## Geothermal Heat Pumps

## Power Quality

*Try me!*

PERFECTIMM

1 800 664-6344 (eastern time)

[www.perfectimm.com](http://www.perfectimm.com)



federal government. Its goal is to help managers make wise lighting decisions. Making those decisions based solely or even principally on the cost of lighting system operation and maintenance (O&M) is not wise.

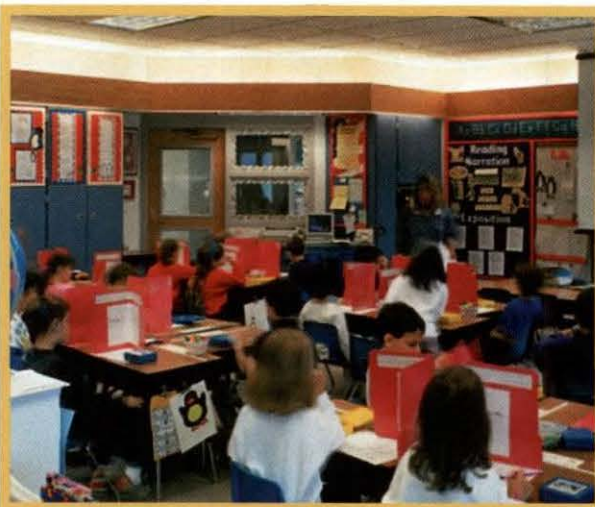
To really determine bottom-line values relative to lighting, consider the purpose of the lighting and what optimal performance will mean relative to that purpose. For example, when Central Michigan University decided to convert from mercury vapor to high-pressure sodium walkway security lighting, it had to choose between 150W lamps and 250W lamps. Either would have provided more light, but the higher-wattage lamps—while much more efficient than the existing mercury vapor lamps—did little to reduce overall energy consumption. They were selected nonetheless, because they provided so much more light, security personnel could see more of what was going on, faster. As such, the school was able to cut back on its security patrols, without compromising student safety. The value of the labor savings was five times the value of energy savings, creating a 2.5-year payback.

Added benefits: students, staff, and visitors (including prospective students and staff) felt safer at night; walkways were given their own identification by virtue of the different color of the light used alongside them; and many felt the new lighting made the campus far more attractive at night.

A similar situation existed at Bryant College in Smithfield, Rhode Island. There, new lighting in the parking lot significantly reduced the frequency and extent of vehicle to vehicle accidents, vandalism, and auto break-ins. While the new lighting was 45 percent less costly to operate and maintain, Bryant saved almost as much each year on the cost of avoided vandalism and accident cleanup. In addition, those using the parking lot and their insurers saved thousands of dollars annually, and the school greatly lowered its exposure to lawsuits and negative publicity.

Night school students and faculty were far more pleased, of course, and one can easily assume that the impact of the new lighting on one's decision to learn or teach at the school could only have been positive. Also, in situations such as these, improved securi-

Courtesy of GE Lighting



ty can often lead to lower insurance premiums. Based on O&M cost savings alone, the new installation would have paid for itself in just under four years. However, considering the full range of benefits involved, simple payback was calculated as 16 months.

Other case histories gathered by the National Lighting Bureau underscore similar results. At a Swampscott, Massachusetts elementary school, new lighting not only consumed less energy, it also

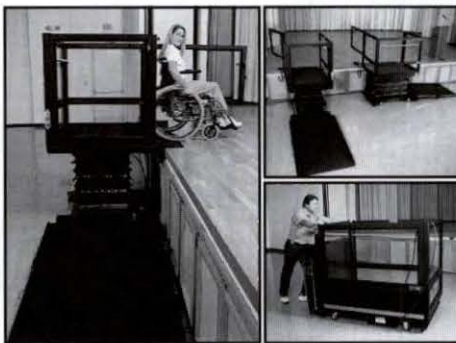
wiped out minor vandalism, generating a 15-month payback considering the value of damage avoided. At Merrimack College, in North Andover, Massachusetts, much better quality lighting installed in the S. Peter Volpe Physical Education Center cut O&M costs by 71 percent per year. A less costly system would likely have saved even more, and cost less, producing a better O&M-based payback. But Merrimack administrators wanted new lighting that would represent an improvement over what existed.

Continued on page 30

## THE MOST COST EFFECTIVE WAY TO ACCESS ALL YOUR STAGES AND PLATFORMS!

### PORTABLE WHEELCHAIR LIFT

- Use it when and where you need it.
- Replaces multiple fixed lifts or ramps--saves valuable floor space.
- One person can set it up in minutes.
- No installation -- just plug it in.
- Durable and trouble-free -- 5 year warranty.
- Now accommodates oversized wheelchairs and scooters.



#### CURRENT CUSTOMERS INCLUDE

Penn State University  
University of Southern California  
Yale University  
Duke University  
University of Virginia  
Seton Hall University  
University of Missouri  
Northwestern University  
University of Illinois Chicago  
Brigham Young University  
University of Tennessee

Call for more information and  
a FREE demonstration video  
(800) 459-0400

**ASCENSION®**  
A DIVISION OF AGM

[www.wheelchairlift.com](http://www.wheelchairlift.com)







AS A COLLEGE ADMINISTRATOR,  
DO YOU SEE A SILLY PRANK  
OR A UNIQUE  
HOUSING OPPORTUNITY?

**A** pop quiz: What is expected to grow 12% in the next ten years, to reach a total of 16.1 million? If you guessed college enrollment, go to the head of the class. With more students than ever pouring into college, higher education facilities like yours will need to meet the increased demand with upgrades and new construction. But with budgets being squeezed as tightly as your facilities, you need innovative ways to make the most of your capital and operating budgets. Enter Johnson Controls. We can help

you stretch your dollars to fund the facility upgrades you need to attract and retain students.

One method is performance contracting, where facility improvements can be paid for by the savings they create. Another is Results Oriented Service™, a program in which we tailor a comprehensive service plan that can cut costs and help you achieve your ultimate goals, namely that of attracting and retaining students. For more information, call Johnson Controls at 1-888-214-0916 or visit us on the web at [www.johnsoncontrols.com](http://www.johnsoncontrols.com).



JOHNSON  
CONTROLS



Because the better system was used—because the physical plant director followed the precepts of High-Benefit Lighting—both the hockey team and basketball team said they could see better and, therefore, practice better. In fact, the lighting improved appearances so much that nearby schools asked to rent rink time; community event and concert managers asked to rent the facility; and so forth. The money saved by the 71 percent O&M savings was virtually matched by the new income created, creating a simple payback of less than six months, while guaranteeing more community involvement and support for the school, happier teams, coaches, and spectators, and more recognition for the school and its facilities.

In classrooms and laboratories, as other case histories show, better lighting can improve eye-hand coordination, making accidents less likely. Research indicates that lighting used to highlight blackboards or displays can help students increase their attention spans. Lighting can also be used to enhance appearances of spaces, improve equipment inspection, and otherwise help achieve results that have important bottom-line consequences.

All High-Benefit Lighting installations are energy-efficient, but energy-efficiency is the last thing considered. The first and foremost consideration is the purpose for which lighting was installed. By achieving that purpose in an optimal fashion, costs can be reduced and, in some cases, income can be raised. As such, when it comes to making decisions about your lighting systems, recognize that many factors need to be considered. Energy conservation and other O&M costs represent just a few of these. And knowing this, you can move to step two of the process: selection of an individual or organization to provide help.

Do not select assistance based on its ability to save energy. Not only might your new system fail to attain the benefits it otherwise could; it might actually provide light that is not as good as it was before, costing far more than it saves. (In one NLB case, the method used to achieve a 50 percent lighting energy savings caused a 28 percent productivity plummet.)

Select a firm or organization that is familiar with High-Benefit Lighting. Bureau sponsors are a good place to start. Many, including the government sources and associations, have excellent publications and other materials available, at little or no cost. The same applies to the manufacturers and even the bureau itself. Some sponsors can also provide no- or low-cost design assistance, often through an individual who has earned the coveted LC (Lighting Certified) designation awarded by

the National Council for Qualifications in the Lighting Professions (NCQLP), another NLB sponsor.

Be sure to select individuals who have worked with your kind of facilities before. Let them know what you'd like to see achieved. The extent to which your wishes can be realized will depend on what's installed right now, of course, and the degree to which it can be improved within your budget. In many cases, the expense associated with High-Benefit Lighting is no different from that required for lighting that would be far less satisfactory.

Third, request a report that evaluates the existing lighting system, and which identifies alternative modifications. To

evaluate your options, you will need more than equipment and energy "numbers." What about the impact on safety and security? Will you be able to reduce security patrols? Will vandalism decrease? What about the risk of auto break-ins, burglaries, assaults?

Will or can aesthetics be enhanced? Will teachers be given new tools with which to work? What are the values involved?

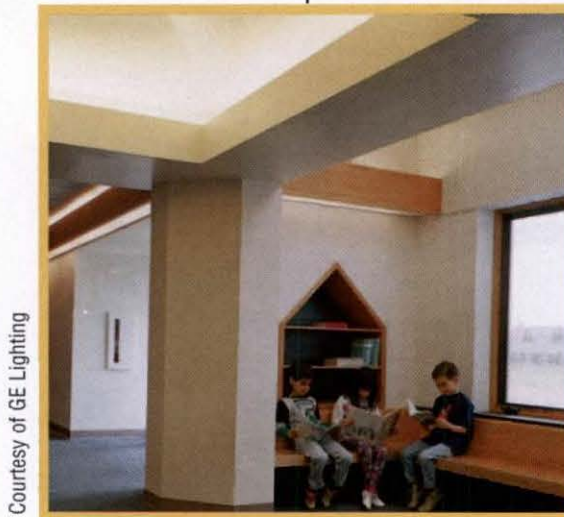
Clearly, your lighting consultant will not be able to answer all these questions. Seek input from the local police or campus security, teachers, students, coaches, and others who are

affected by the quality of light you provide.

Fourth, make your decisions with respect to overall considerations and, to the extent practical, monitor continuing results. How is the accident rate affected? How much was saved? Have insurance rates been lowered? How much was saved? Has athletic performance been enhanced? Have new opportunities for income been created? In short, has your awareness of High-Benefit Lighting produced the results that others in your position have achieved?

One of the most attractive aspects of High-Benefit Lighting, from the point of view of Renaissance people, is the relative ease with which the additional information can be gleaned. One of the best places to start is at the National Lighting Bureau's website ([www.nlb.org](http://www.nlb.org)). There, you'll find general guidance, case histories, descriptions of NLB publications, articles, and hot links to a variety of other organizations, including NLB sponsors.

As this article tries to make clear, lighting is far more than just another aspect of the physical plant budget. It has impacts that go far beyond that, into any number of areas that are affected by your decisions. By gaining some information, and taking the few sure steps recommended, you should be able to outshine even the best the Renaissance had to offer. 🏰



Courtesy of GE Lighting



# Your one source for facilities information!

## Facilities Management: A Manual for Plant Administration

William D. Middleton  
Editor-in-Chief

**S**ince 1984, facilities managers have turned to *Facilities Management: A Manual for Plant Administration* for in-depth information on managing facilities.

Find solutions to your top facilities information needs, such as

- When and what facilities responsibilities should be outsourced
- Developing your best strategy for energy management
- How to find creative strategies for funding deferred maintenance
- Communicating facilities issues to upper level management
- Managing the planning, design, and construction process and much, much more!

This latest edition of the *Manual* is fully revised and updated. Now a four-volume soft-cover set, the *Manual* is organized around the four core areas of facilities responsibilities:

- General Administration and Management
- Maintenance and Operations of Buildings and Grounds
- Energy and Utilities Systems
- Facilities Planning, Design, Construction, and Administration

Together these four volumes comprise a thorough foundation in facilities management knowledge. The *Manual* draws on the knowledge and experience of nearly 100 facilities professionals.

- New chapters on Space Management, Real Estate Management, Leadership, Privatization, and more.
- Nearly 2,000 pages of facilities information.
- Information on technology and applications is integrated throughout each chapter.
- New section on Leadership explains why quality facilities are a vital part of an institution's mission, and how facilities managers can work to ensure they meet long-term institutional goals.

To order, complete this form and include payment in U.S. funds by check or credit card. Orders are shipped via UPS; please allow 3-4 weeks for delivery. Return this form to: APPA Publications, Dept. M3, PO Box 1201, Alexandria, Virginia 22313-1201. Credit card orders may be faxed to 703-549-2772.

☐ I would like to purchase the full set of *Facilities Management: A Manual for Plant Administration*, third edition.

(Softcover, 4 volumes + slipcase, 1,828pp., ISBN: 0-913359-97-1)

**\$221 / \$170 APPA members**

**(Save 15% off the cost of purchasing individual volumes!)**

Quantity \_\_\_\_ x \$ \_\_\_\_ + \$8 S&H = \_\_\_\_

**Or purchase individual volumes for \$65 each / \$50 APPA members.**

☐ **Part I: General Administration and Management**

☐ **Part II: Maintenance and Operations of Buildings and Grounds**

☐ **Part III: Energy and Utilities Systems**

☐ **Part IV: Facilities Planning, Design, Construction, and Administration**

Quantity \_\_\_\_ x \$ \_\_\_\_ + \$8 S&H = \_\_\_\_

**TOTAL ORDER: \$ \_\_\_\_**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Institution: \_\_\_\_\_

Street Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**Credit Card Orders provide the following:**

Card type: ☐ Visa ☐ MasterCard ☐ American Express

Cardholder's name: \_\_\_\_\_

Card number: \_\_\_\_\_ Exp. date: \_\_\_\_\_

Signature (required) \_\_\_\_\_

**Mail to:** APPA Publications, Dept. M3, PO Box 1201,  
Alexandria, Virginia 22313-1201.



**FACILITY CONDITION ANALYSIS** • elevator engineering • infrastructure: utility analysis • energy systems: evaluation and design • power plant: cogeneration analysis • operations and maintenance analysis • construction management • deferred maintenance / capital renewal management • security analysis • facility condition analysis • elevator engineering • infrastructure: utility analysis • energy systems: evaluation and design • power plant: cogeneration analysis • operations and maintenance analysis • construction management • deferred maintenance / capital renewal management • security analysis • facility condition analysis • **ELEVATOR ENGINEERING** • power plant: cogeneration analysis

- operations and maintenance analysis
- elevator engineer and maintenance analysis

## INFRASTRUCTURE: UTILITY ANALYSIS

## ENERGY SYSTEMS: EVALUATION AND DESIGN

infrastructure: utility analysis  
management • deferred maintenance  
infrastructure: utility analysis

## POWER PLANT: COGENERATION ANALYSIS

## OPERATIONS AND MAINTENANCE ANALYSIS

**ANALYSIS** • operations and  
condition analysis • elevator  
ins and maintenance analysis  
s • elevator engineering •  
ance analysis • construction  
ing • infrastructure: utility  
and maintenance analysis •  
engineering • infrastructure  
• construction management  
structure: utility analysis •

**ANALYSIS** • construction  
ing • infrastructure: utility  
construction management •  
structure: utility analysis •

is • elevator engineering •  
ance analysis • construction  
• elevator engineering •  
ance analysis • construction

## SECURITY ANALYSIS

YOU AND ISES ... PARTNERING  
FOR A HIGHER STANDARD. 



**ISES**  
ISES CORPORATION

2165 West Park Court / Suite N / Stone Mountain, GA 30087 / Telephone: (770) 879-7376 / Fax: (770) 879-7825 / <http://www.isescorp.com>



# The Metamorphosis of a Football Stadium

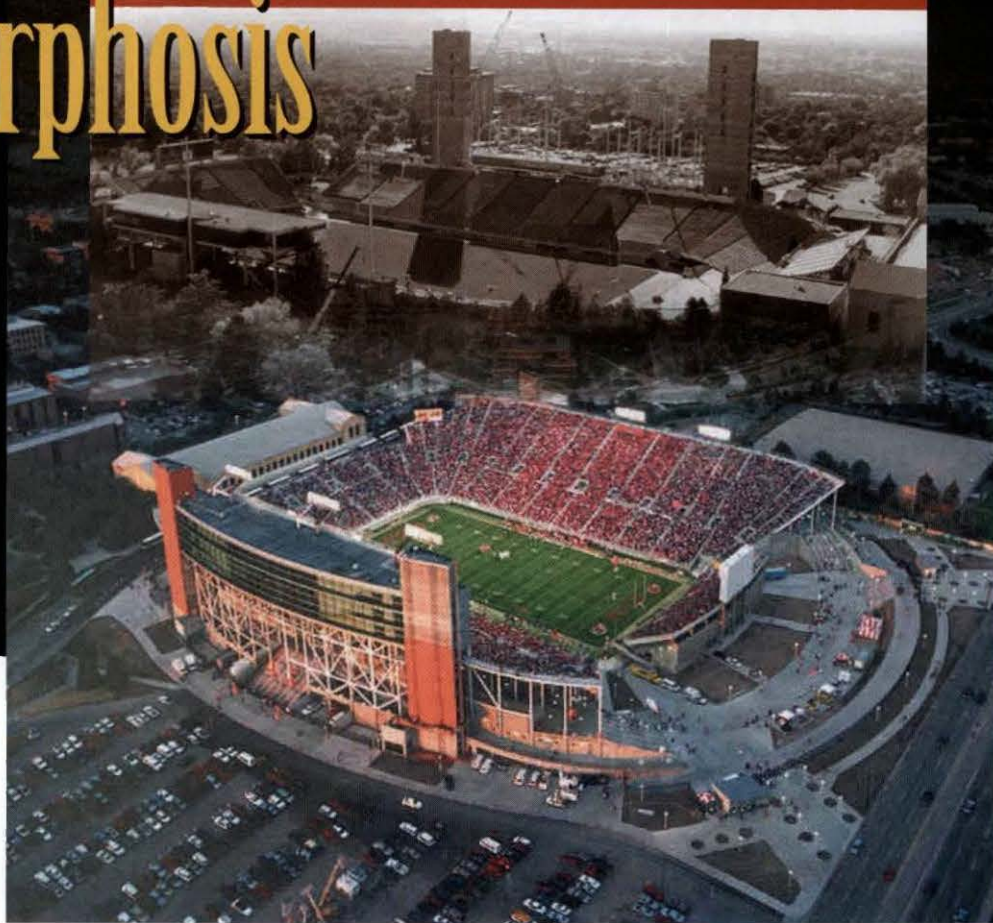
by Pieter J. van der Have

**F**ootball, American style. Big business. Tens of thousands of highly charged fans, each one of whom expects to watch an exciting game, every time. Every one of them expects to have access to a seat with great sight lines, hot dogs stands with short lines, and restrooms with *no* lines. They expect to be able to sit through the entire 3-½ hour event, watching their favorite team annihilate the enemy as a ton and a half of human flesh crash, smash, and annihilate each other. These paying fans prefer to do this without a single sliver in their respective gluteus maximi. They demand safe conditions, equal access, and generally a good deal for their money.

Most every community with a college football team changes faces on game day. To many, the football stadium carries a status parallel or even beyond that of a temple, even though for many it is a place of worship. If all that is true, why did we for decades insist on housing this shrine in a tired, run-down, unsafe, inadequate facility? Why do so many others? Could it be....money?

The University of Utah stadium has shown its age for many years. Built over 60 years ago, using wooden bleachers on planking on built-up dirt, and upsized in the early 1980s, this home for 32,000 worshippers was loved like an old swayback horse. It no longer met anyone's needs. Concrete, where it had been used, was rapidly deteriorating and falling apart.

**Pete van der Have is director of plant operations at the University of Utah, Salt Lake City, Utah. He is a Past APPA President and can be reached at [pvanderhave@campplan.utah.edu](mailto:pvanderhave@campplan.utah.edu).**



The eight lower rows were added in the early 1980s and were in reasonable shape. The restrooms were too few (especially for the women), lighting was inadequate, access was limited, and the place was just generally tired and worn out. The wooden bleachers and planking were slowly sliding downhill, creating an unsafe and ungainly situation. Moreover, it was deemed to be too small for the type and size of institution in our conference. Everybody knew it had to go, but very few wanted to take the first steps toward its demise.

## The Seed is Planted...

Approximately seven years ago, several gutsy individuals began to investigate opportunities to change things. Funding was found to replace the very old, worn out artificial turf playing field with the then-recently developed SportsGrass system, a creative mixture of artificial sand-filled turf and real grass. We added a full field drainage system, which doubled as a fan-forced sub-air system. (Our experience with this playing field could be a whole other story.)

In the meantime, the university retained financial consultants to determine if the local market could support a better, larger stadium. If we build it, will they come? After many gut-wrenching meetings with numerous stakeholder groups, the conclusion was rendered: Yes, they'll come! With contagious

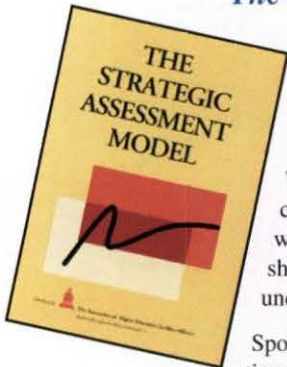
*Continued on page 35*



# FOUR NEW BOOKS PUBLISHED BY APPA

**APPA: The Association of Higher Education Facilities Officers is pleased to announce the publication of four new resources in facilities management.**

## *The Strategic Assessment Model*

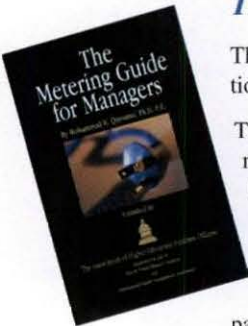


Developed by APPA as an evaluation and management tool, the Strategic Assessment Model enables facilities managers to track organizational performance along a continuum of key performance indicators. SAM also enables managers to compare their organization's performance to that of its peers, as well as establish improvement goals and plot progress toward those goals.

The new book, *The Strategic Assessment Model*, includes six chapters that introduce the SAM concepts and performance indicators, links them to a balanced scorecard framework and APPA's four core competencies, and explains how SAM connects with the Baldrige Award criteria. Appendix material includes valuable results of the recent SAM survey, a one-page matrix showing the 18 core metrics and their current ratios, definitions, resources for further reading, and step-by-step instructions for undertaking a formal benchmarking process.

Sponsored in part by Nalco Chemical Co. Softcover, 117 pages, ISBN 1-890956-08-2, Item #A728, \$60 APPA member institutions; \$80 others

## *The Metering Guide for Managers, by Mohammad H. Qayoumi*



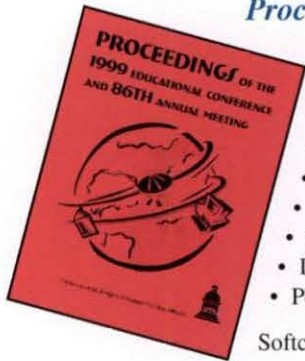
The lack of adequate utility metering is one of the key barriers for effective energy management for many organizations. As deregulation of electricity moves from concept to implementation, the need for better and more reliable metering has become more evident.

The *Metering Guide for Managers*, written by Mo Qayoumi of the University of Missouri/Rolla, provides a clear introduction to measurement and utility metering and explains why it is important to the campus facilities professional and his or her institution.

Included are chapters on metering fundamentals, metering technologies and products, and management perspectives. The book also provides a discussion of basic statistics for managers, information on measurement reliability, and useful references for further reading.

Sponsored in part by the Electric Power Research Institute and the International Facility Management Association. Softcover, 84 pages, ISBN 1-890956-09-0, Item #A729, \$35 APPA member institutions; \$55 others

## *Proceedings of APPA's 1999 Educational Conference (Cincinnati, Ohio)*

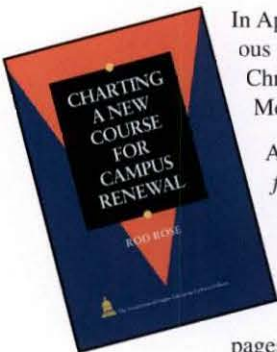


Includes 11 papers presented during APPA's 1999 Educational Conference and 86th Annual Meeting. Topics include:

- Financing of central utility plant maintenance and operations
- Preparing for Y2K
- Assessing capital equity/adequacy for a university system
- Changing the corporate culture within the physical plant department
- Benchmarking
- Planning for uncertainty
- Integrating operations and academics
- Performance improvement

Softcover, 144 pages, ISBN 1-890956-10-4, Item #A731, \$28 APPA member institutions; \$35 others

## *Charting a New Course for Campus Renewal, by Rod Rose*



In April 1998 a powerful conference brought together representatives from the public universities of New Mexico to discuss the serious problem of capital renewal and deferred maintenance of the state's campus facilities. Speakers included Harvey Kaiser, Doug Christensen, Chris Christofferson, Ron Hicks, John Bruning, Wayne Leroy, and Val Peterson, as well as representatives of New Mexico's Commission on Higher Education and other organizations.

Author Rod Rose has summarized the valuable presentations and insights garnered at the symposium for *Charting a New Course for Campus Renewal*. These are the lessons learned from the New Mexico Higher Education Symposium on CRDM that are easily applicable to other states or systems.

The book first establishes the context which led to this gathering of experts, then provides a set of common vocabulary from which to speak. Several planning models are presented and various financing options discussed. Included are policy and funding implications, lessons learned, and approaches for future collaborations at the state and national levels. Softcover, 53 pages, ISBN 1-890956-11-2, Item #A730, \$45 APPA member institutions; \$65 others

**To order:** For shipping and handling, add \$5 for orders under \$80; add 10% of orders over \$80. Send check or institutional purchase order to APPA Publications, 1643 Prince Street, Alexandria, VA 22314-2818. You may also order through APPANet at <http://www.appa.org/resources/publications>. For quantity orders or for more information, please contact APPA at 703-684-1446 ext. 235.



enthusiasm, the university decided to overhaul and expand its Running Utes' Stadium.

There was still, of course, one pressing problem, which now had to be faced head-on: Who's got the money to pay for it? At this point, no one did. We knew better than to approach the state legislature for funding. Thus, our campus did what any modern, self-respecting university does—beg for donations. To our surprise, significant donations soon started to roll in.

As the experts were constantly reassessing our current status, a mixed blessing befell onto our state and Salt Lake City: The 2002 Winter

Olympics were awarded to Salt Lake City. They would need a home for Opening and Closing Ceremonies, a home large enough to handle 50,000 spectators and the 4,000 athletes.

That announcement probably was the final catalyst helping us make the decision: Let's proceed with the renovation and enlargement of the existing stadium, and let's get it done before February 2002!

In late 1995, to fully analyze the project's constructability as well as to begin the initial design work, we (the University of Utah and the State Division of Facilities Construction and Management) retained FFKR Architecture/Planning, a successful local design firm. A steering committee was formed, with representatives from the various stakeholder groups. FFKR soon recommended that we not expand the existing stadium. They found it more cost effective to simply raze the old stadium, and build a new one in its place. The key component of this suggestion was a "bowl" seating configuration in which the seating rows run continuously from the field to the top row.

In early 1996, we still suffered from extreme budget limitations on this project. Logistically, it made sense there to complete the project in three phases. The west phase (including housing for press, suite, and club levels), when completed, could help generate an increase in revenue to pay for the east phase, and so on. Unfortunately, the last phase would also be the least glamorous and therefore would have

the most difficult time generating enthusiastic support from donors, alumni, etc. The proposed schedule reminded me of what a few acquaintances had done in order to get a house: build the basement with a temporary roof, move in, then build the rest of the house. Not pleasant or fast, but more convenient for the checkbook. Definitely, it is not cheaper. We determined that we could end up paying a premium of millions of dollars in order to phase this project over three years, even if we could keep the funding stream and the donations going over that period of time. What's wrong with this picture?

### Add a Little Fertilizer...

Sober minds prevailed and conquered. An even more energetic fund drive was kicked off. Again, we received ecstatic support from local fans, alumni, donors, philanthropic groups, and the Salt Lake Olympic Organizing Committee. In late December 1996, a matching grant from the George S. and Dolores Dore Eccles Foundation worth millions of dollars came to us. We even decided to sell the old chair seats and bleachers



**Jan. 1998. The old bowl has been removed. Superstructure for the luxury boxes is beginning to dominate the site.**

out of the stadium to anyone interested.

The success of this funding drive changed the stadium expansion (as it was still referred to) from a three-phase project to a 17-month, single-phase project, to be completed before the commencement of the 1998 football season. The die was cast; we're going to raze the old and build the new! Except that we still had to find a contractor who would be willing to build our new 45,000 stadium, including a couple of dozen luxury boxes, for a limited budget of under \$50 million, on a very constricted site, while allowing us to hold one outdoor concert and six football games in the old stadium.

As we were approaching the point when we wanted to locate a contractor, design work was proceeding (thank goodness!). FFKR realized early in the design process that the stadium configuration must be of a simple form to facilitate ease of construction and to meet the budget. Additionally, they realized that by paying extra attention to the design of repetitive details, the feel of the stadium could be elevated to a higher level. While the new stadium was to be designed



primarily for football, the desire to host rock concerts and NCAA soccer games was also taken into consideration.

The 2002 Winter Olympics required that a tunnel be added providing direct access to the playing field from the exterior of the bowl. Since they had placed quite a bundle of cash into the construction budget, we were happy to oblige. We had agreed to build 45,000 permanent seats, providing for at least 5,000 temporary seats that could be added for the Ceremonies. Additionally, we designed the roof of the Stadium Box (now called Stadium Towers) so that it can accommodate the crush of world press during the Games. In order to meet the budget and the compressed construction schedule, the "lower" bowl would be constructed of concrete slab-on-grade seating tiers while the "upper" bowl would be steel superstructure and steel plate. The university also encouraged development of a South Plaza "gathering place" which matched with the Olympic requirement for a large staging area for the Games' Opening and Closing Ceremonies.

We hit the marketplace with designs which were about 80 percent complete. A modified design/bid/build process was used to narrow the list of interested and qualified contractors down to a few, who were then encouraged to develop proposals. Obviously, budget and schedule were two primary drivers. During price preparation, it became obvious to all of the contractors that our budget was going to be exceeded. Layton Construction Company (LCC), the eventual winner in the process, admitted that their initial reaction to demolition of

an existing stadium and essentially building a brand new one between seasons was one of skepticism. This sense was amplified even further when they learned they would not be permitted to use our SportsGrass playing field for a staging area. Yet, as they learned more about the project and our team (the steering committee, not the football team), they became more optimistic.

As written by LCC:

We were determined to have a solution on how the project could be completed on time, prior to our responding to the proposal. We developed several strategic plans and techniques that would be necessary to accomplish the goal. Some of the strategic elements included:

1. Begin the Stadium Box ASAP and continue work on it during the football season.
2. Slip form the stair and elevator cores to facilitate steel erection.
3. Build the bowl with the concrete and steel sections of the bowl schemed and build as separate phases. The upper half steel bowl could be constructed first, leaving the area of the lower bowl for staging and excavation. The lower and concrete half of the bowl would be formed and poured last.

The project team now included representatives from the university (including the athletics department, others, and facilities), FFKR, Layton Construction, plus a representative from the State Division of Facilities Construction and Management. Upon negotiation of the contract all worked very

YUCK!



## WE HAVE BETTER OPTIONS!

### THE LITTER-MATE

### SMOKERS' OUTPOST

- Oxygen restricting design extinguishes cigarettes quickly
- Holds thousands of butts
- Easy clean-out!
- Galvanized pail liner included
- Thumb screw locking system
- Identification Decal
- High density polyethylene
- 42" tall, weight, 10 lbs.

NO MORE SAND TO CLEAN !  
NO MORE RAINWATER OVERFLOW !  
NO MORE UNSIGHTLY TRASH !



The LITTER-MATE, coordinates with the 0603 Standard Smokers' Outpost.

- High density polyethylene
- 21 gal. trash receptacle,
- 45" tall, wt. 14 lbs.

  
 (850) 650-6602  
 (850) 650-6606 Fax  
[www.smokersoutpost.com](http://www.smokersoutpost.com)

Smokers' Outpost 0603
Litter-mate 0607




# 1 - 800 - 622 - 6069

**Quantity Discount**  
**Buy Both and Save**



closely together to get the project back into budget, without diminishing the project. The contractor and the subs developed an extensive list of items to be considered by the user group for "value engineering." The steering committee picked those items from the list that would not have a negative impact on the success of the project. The contract was signed and we were on our way. Initially, as the contractor moved on site to start excavation for the Stadium Box, the project progressed ahead of schedule, and stayed that way for most of the first 30 percent of the project. That is not to say we did not run into some complications. There were surprises with utility lines (why not) and the geotech conditions for the site were very complex, creating many challenges. The demolition contractor, once he came on site the day after the last football game of the 1997 season, operated on a different schedule than did the others. The old scoreboard, when lifted off its moorings by a large crane, was dropped and wiped out 300 seats located at the south end of the stadium—the only part that was not going to be replaced. All those seats had to be replaced, and we were lucky that was all!

### **Add a Little Water and Sunshine... and a Little Luck**

This being Utah, weather is always a factor. It is either too hot or too cold to pour concrete. This would be the year when Mother Nature would do her best to keep us challenged. The contractor initially attempted to backfill the slope with soil that was too saturated. They ended up taking it all out so that they could import material. When they began the traffic topping, it began to rain, and rain, and rain, and rain. After six weeks of rain they had to start multiple shifts to get the topping done on time. As the painting contractor started to spray the high-quality paints on the steel structure (and you can imagine how much of that there is under a stadium of this type), the winds started to blow. Unfortunately for him, and us, we received hundreds of complaints during the next several weeks from irate members of our campus community who found out their cars were not merely dirty but speckled with paint. Since the Opening and Closing Ceremonies are to occur in this facility, one Olympic sponsor

donated almost a million dollars worth of mechanical equipment to the Olympic organizers, who in turn sold it to the project for a vastly discounted cost. Although the equipment was not a total hand-in-glove fit, the team was able to make it work, still enjoying a net benefit to the project. The public had a great desire to know what was going on. Almost every day someone showed up on site wanting to take a tour. We had imposters pretending they were members of the Olympic movement, or others saying they were on our Board of Trustees, just to take a peek at the stadium. Layton and the subs had to contend with students, football coaches and players, governmental officials (real or perceived), Olympic dignitaries, NBC Sports (the official network for the 2002

Winter Games), friends, and family. It all had to be done with everyone's safety in mind, as well. Liability questions had to be continuously addressed.

### **Provide a Lot of Tender, Loving Care...**

One single, significant process that made this project possible was the slip-forming techniques used on the towers (177 ft. high), which



**April 1998. Concrete work really starting to take shape. Note that most of the steel work is already in place.**

house elevators, stairways, and the shaft for mechanical systems. They also provide the anchor system for the new pressbox and suites—a four-story, 77,000 gsf suspended structure. The time we saved was calculated to be at the very least three months on the construction schedule. The slip-forming used involved a "trapezoidal" shape, rarely done before in this country. Three 8-hour shifts and a 24-hour concrete batch with contingency plans were required, with 30 workers for each shift. Another problem that had to be resolved resulted from the huge amount of sandblasting required to strip the steel down to bare essentials, prior to painting. There was so much sand and silt to clean up that LCC crews tried sweeping, snow shovels, even conveyers. They still could not keep up with the sheer volume. Finally, someone suggested renting a giant vacuum truck. It worked great!

### **And Bingo, a New Stadium Flourishes!**

Well, it wasn't a cake walk, to be sure. But a number of steps were taken to minimize risks and to guarantee success. For instance, the general contractor sponsored a full-day partnering session. Invited were our entire design and



construction team, all the subcontractors, major vendors and suppliers, etc. This was a forum that allowed all the participants to fully understand and accept the goals and objectives of the other players. Lines of communication were always open, so that university personnel, the designers, and builders were always available to answer questions and coordinate on very short notice. A university official, empowered to make almost *all* decisions on the spot, was present at the weekly coordination meetings. The communications were definitely not phatic in nature—we weren't just being nice to each other. Any one of us did confront when the situation called for it. LCC held weekly meetings with the subcontractors, and separate meetings with the consultants. Questions were answered immediately in most cases, avoiding costly and unnecessary delays. When the weather threatened to delay the completion of the project, the contractor and his subs worked out a plan to bring more help to the site, in order to recaptured valuable lost time.

Virtually everyone, virtually all of the time, maintained a "will do" attitude. If the solution was not obvious at first, the players were able to meet face to face and find *the best solution*. When there were disagreements (and there were a few, without a doubt) they were resolved. No one took disagreements personally. As a result of this kind of attitude, we were able to save enough money on the project to "buy back" some of the niceties given up during the initial value management process. For instance, we had chosen to use only architectural concrete on the exterior of the towers, sacrificing a sandstone veneer. We were able to reverse this decision before the end of the project. (We had still designed the footings, etc. to accommodate this potential at a later date.)

Everyone recognized early on that this would be a high profile project. In part because of the Olympic implications, in part because of the generosity of several of the donors, and in part because of the interest in the community with this project, we recognized that there were literally thousands of eyes watching every bit of progress. Some naysayers were saying nay during the full course of the project saying, "You'll never finish on time." But, hey, we did!

That there was and is an unbelievable amount of pride with this project is quite evident. We are still in regular contact with the contractor, who maintains an active interest in the success of the newly named Rice-Eccles Stadium. When approached to contribute their thoughts on the successes and hazards with the project, they as well as the designers, as well as university stakeholders eagerly submitted more documents than I could use for this article. Layton Construction shared their numerous photographs of the stadium with us, beyond the framed ones some of us are fortunate enough to display in our offices. Corny though it may sound, I will never forget the 17 months I was able to spend with this team of professionals, together with whom we were able to build such a memorable project.



**June 1998. Finishing touches are being applied to the bowl. Old scoreboard has just been removed. Stairs towers are growing sandstone skin.**

## To Have and to Hold...

The university has set up a system whereby this facility has to be totally self supporting. The football team simply becomes a tenant five or six times per year. The stadium has to be a totally independent auxiliary, paying for all its own expenses. In order to generate a revenue stream sufficient enough to pay off the bonds and

guarantee proper maintenance, it is operated independently of other campus organizations.

The Stadium Towers provide a spectacular view over the valley. We're 500 feet above the valley floor, and the entire west face of the suspended structure is glass. This makes the facility a natural and marvelous location to host conferences, meetings, wedding receptions, and so on, both to on- and off-campus organizations. All of these events generate income beyond the traditional revenue stream generated by football, concerts, concessions, and the like.

There are still additional organizational and personal alignments that have to occur in order to make this venture operate as smoothly as we would all like. But, given the sweat and tears we all put into the success of the construction project, there is no doubt in my mind that this facility will be an award-winning success story of which we can all be proud for many years! Participants such as FFKR, Layton Construction, DFCM, the University of Utah (many of whom provided text for this article, which I liberally incorporated), will insist on this continued success being the only acceptable option! 🏛️



# Defining Quality

## IN YOUR CLEANING OPERATION



by James E. Sears

Quality can be defined as the degree or grade of excellence. In today's changing environment, cleaning organizations whether in schools, hospitals, hotels or office complexes must be able to accurately measure and communicate what quality is for their organization. Defining quality in your organization gives the organization:

- Organizational behavior based on a mission statement
- The ability to communicate processes to stakeholders, customers and staff in a text that is easy to understand
- The ability to demonstrate the relationship between dollars invested (input) and performance (output)
- The tools to quantitatively measure performance for the purpose of process validation
- The framework from which to develop and communicate multiple scenarios of service based on changing conditions

I. Organizations must develop and communicate a clear statement of mission to

ensure that departmental activities are consistent with and supportive of the facilities operating plan and associated operating strategies.

### Building Services Mission

#### Statement of

#### Georgia State University

To provide a proactive customer driven service to the University Community. This service will be cost effective and of the highest quality as defined by benchmarks, industry standards and funding levels. The driving force of the organization will be the organizing efforts of all employees utilizing the concept of employee empowerment.

This is just one example of a mission statement, but before developing one, do research first. It is imperative that this document be the driving force of your organizational effort.

II. Communicating processes to stakeholder, customers and staff starts with establishing standards. These standards help to develop reasonable expectations from which descriptive statements for levels of service can be written. This helps to develop

a clear understanding with all parties. The results of not taking this vital step can be:

- a. Misaligned expectations and performance
- b. Customer and stakeholder dissatisfaction
- c. Confused employees
- d. Replacement of your service



*James Sears teaching at a GAPPA conference.*

*James Sears is assistant director for building services at Georgia State University, Atlanta, Georgia. GSU's Building Services Division is a 1999 winner of APPA's Award for Excellence in Facilities Management. Sears can be reached at [ppdjes@langate.gsu.edu](mailto:ppdjes@langate.gsu.edu).*



# PUT DOLLARS BACK INTO YOUR BUDGET.

**Getting an accurate picture of when, where and how you use energy is the key to effective campus energy management.**

**NHT designs and implements turn-key, campus-wide Energy Information Systems capable of identifying, allocating and aggregating energy consumption by department, building or time of day.**

**Call today to acquire the energy intelligence capability you need to make wise energy decisions!**



**"Your Solution For Energy Intelligence"**

PO Box 5000 • Butte, MT 59701

1.888.644.4572

[www.newhorizontech.com](http://www.newhorizontech.com)

TM

## *Maxiforce 1* *Ridgid and Collapsible Bollards*

**"Give your budget a Break !  
You have tried the Rest, Now try the Best..."**

### *The Maxiforce 1 Bollard Features :*

- Can be lowered in either direction...
- Helps control through traffic... (wrench operated)
- A complete easily serviceable bollard... (eliminates any down time)
- Allows for the replacement of existing units with our unique adapter plates... (no digging up of most in ground bases)
- Partial units can be purchased...
- Stock parts are readily available, but rarely a necessity...
- No more expensive replacements...

**Let Us, Help You!**

G. Reale Enterprises, Inc.  
3444 Marshall Road, Suite 101  
Drexel Hill, PA 19026

Tel: (610) 623-2611

Fax: (610) 623-6384



Visit us at !

<http://maxiforcebollard.com>

By utilizing industry standards or re-searching organizations that have effectively developed this communications document, you may not have to reinvent the wheel.

III. By developing different service levels, corresponding labor models and work assignments can be developed. This is also a critical piece for defining quality because one can easily negotiate services provided to customers within a given level of service. Additionally, one can demonstrate the relationship between cost and service offered or delivered. The ability to communicate this gives the cleaning manager new flexibility when having to define the activities of their unit.

IV. What validates this process is an effective Quality Assurance Program that is based on the levels of service offered. This allows one to quantitatively measure the output of the cleaning unit. Additionally, it helps to demonstrate the production capability of a given workforce and separate process problems from people problems within the operation. This is an invaluable training tool on the ability to provide consistent high quality service.

V. These processes allow a cleaning operation to develop packages that take a 360 degree review of organizational processes. It is very important for cleaning professionals to have complete knowledge of their businesses. The processes described here form the foundation to evaluate:

- a. The effect of increases/decreases in funding levels
- b. The foundation of performance contracting
- c. Labor needs for expanding operations

The most rewarding part of this is the development of trust between stakeholders, customers, employees, and cleaning unit management. 🏢



# VIDEO TAPES ON SUPERVISORY TRAINING AND DEVELOPMENT

## ORDER FORM

<b>1/2" VHS</b>	<b>Title</b>	<b>Price</b>	<b>Qty.</b>
#1	Improving Our Supervisory/Leadership Skills	\$195.00	_____
#2	Leadership Principles That Will Help You Make Better Judgment Decisions	\$195.00	_____
#3	"Have You Upgraded Your Communication Skills?"	\$195.00	_____
#4	"Motivation is the Discovery of—"	\$195.00	_____
#5	"You Want To Have Balance and You Want To Do These Things"	\$195.00	_____
#5	What is "Customer Relations?"	\$195.00	_____
		TOTAL	_____
	5% DISCOUNT for purchasing 3 tapes	MINUS	_____
	10% DISCOUNT for purchasing all 6 tapes	MINUS	_____
		<b>GRAND TOTAL</b>	_____

[ ] Payment Enclosed [ ] Purchase Order # \_\_\_\_\_

**Make checks payable to:**

**The George B. Wright Company, Inc.**

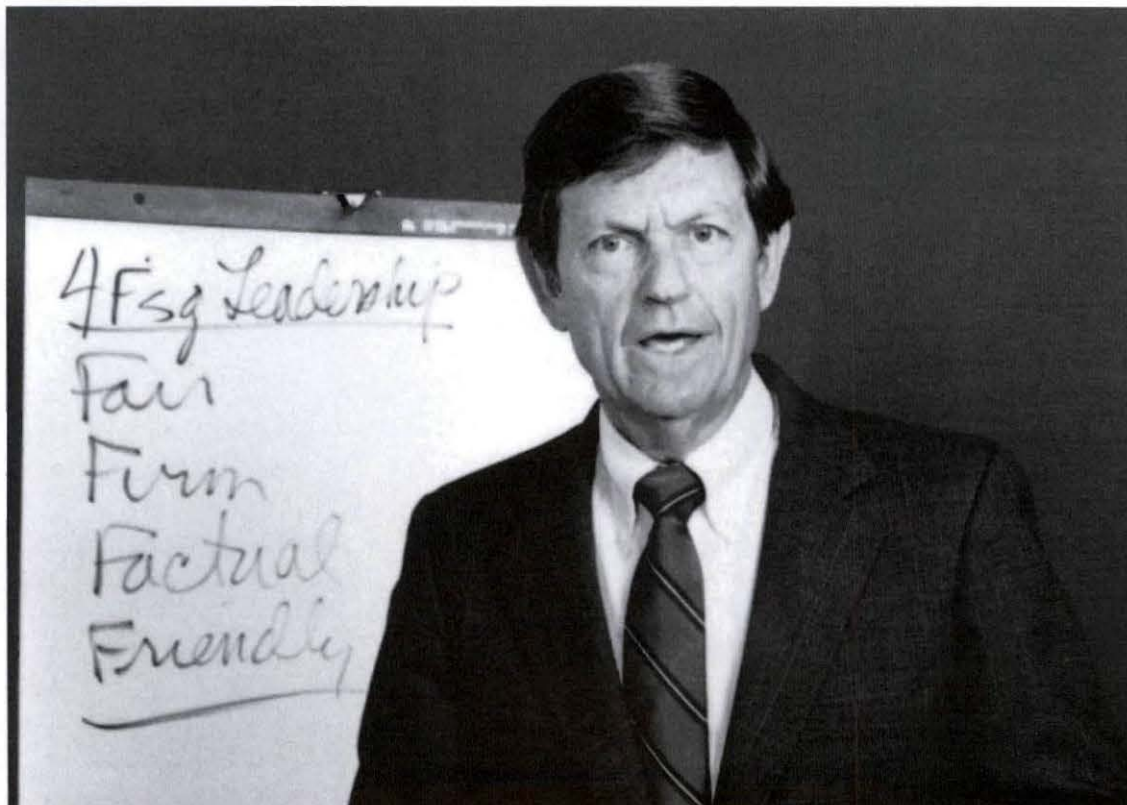
**561 Chateaugay Lane, N.E.**

**Atlanta, Georgia 30342**

**E-Mail: [tgbwco@mindspring.com](mailto:tgbwco@mindspring.com)**

**Visit our Home Page:**

**[www.mindspring.com/~tgbwco](http://www.mindspring.com/~tgbwco)**





# ***Mailboxes***

## ***and Postal Specialties***



***The Industry Leader in the Educational Marketplace***

**Products Include:**

***Brass Mailboxes  
Brass Door Spare Parts  
Aluminum Mailboxes  
Apartment Mailboxes  
Commercial Mailboxes  
Pedestal Mailboxes  
Free-Standing Mail Centers***

***Residential Mailboxes  
Parcel Lockers  
Name Directories  
Key Cabinets  
Free-Standing Drop Boxes  
Wall Mounting Mail Drops  
Specialty Boxes***

***CONTACT US FOR A  
FREE CATALOG!***

***1-800-SALSBURY  
www.salsbury.com***



People Committed to Quality Since 1936

1010 East 62nd Street, Los Angeles, CA 90001-1598





# ***FIRST SOURCE*** ***for Products Helps You*** **Select and Specify** **Products**

by Susan Crain

**A**s we approach the millennium, information overload is the norm, and discovering real timesaving, valuable information tools is no easy task. If locating building products is one of your time-consuming chores, look no further. First Source can be your first choice.

*First Source for Products* is a comprehensive, up-to-date compendium of building products and manufacturers in the construction industry. Published by Architects' First Source—a CMD Group company and APPA strategic alliance partner—the resource not only identifies products and their manufacturers, it is also complete with mailing, e-mail, and website addresses as well as telephone and fax numbers. Professionally written, concise product information features color photographs that illustrate the products and their applications.

In addition to the preliminary product information found in *First Source*, Architects' First Source publishes SPEC-DATA® and MANU-SPEC® on behalf of the Construction Specifications Institute (CSI), a strategic alliance partner of both APPA and CMD Group. SPEC-DATA presents technical details about manufacturers' products such as composition, basic uses, limitations, installation, warranty, maintenance, cost, and availability. The uniformity of the ten-part format makes it easy to compare products and saves time in extracting the facts from conventional product literature or catalogs.

---

*Susan Crain is corporate communications manager for the CMD Group, Norcross, Georgia. She can be reached at [susan.crain@cmdg.com](mailto:susan.crain@cmdg.com). CMD is an APPA Strategic Alliance Partner; the information in this article is provided as a member service.*

The companion MANU-SPEC documents use a three-part SectionFormat™ to present manufacturers' proprietary specifications. These specifications are complete and can be placed directly into construction documents. The data is compatible with three versions of Microsoft Word® and two versions of WordPerfect®, making it easy to download and edit into specifications. First Source partnerships with MASTERSPEC (from the American Institute of Architects) and SPECTEXT (from the National Institute of Building Sciences) assure compatibility to match the specification styles used to produce project documents.

Together, SPEC-DATA, MANU-SPEC, and *First Source for Products* make up a single solution for product information to





help users at every step of the product selection. SPEC-DATA is distributed in print exclusively to the members of CSI. However, both SPEC-DATA and MANU-SPEC are available on the Internet and CD-ROM versions of First Source to all members of the building team. So with all of this information in one easy place, why look further? First Source should be your first choice for product selection and specification.

### Why should First Source be your first choice?

- ***It's formatted.***

All of the information that appears in First Source, SPEC-DATA, and MANU-SPEC follows a standardized format, making it easy for you to compare and evaluate products, side by side. You don't have to search for where one manufacturer places warranty information in a brochure versus another. It's all right in front of you—in a recognizable, easy-to-use format.

- ***It's written for professionals by professionals.***

The product information that appears in First Source and in CSI's companion products, SPEC-DATA and MANU-SPEC, are written by professional architects and specifiers with your needs in mind. This information is not marketing hype from a manufacturer's marketing department. It's valuable product information, technical data, performance information and other details assembled by professional specifiers and architects, giving you the information you need to select and specify products for your facilities.

- ***It's comprehensive.***

First Source is assembled through the unique partnership with another CMD Group company, Manufacturers' Survey Associates (MSA). Manufacturers' Survey Associates is a company that performs quantity survey and take-offs on behalf of manufacturers and their representatives. While gathering details from plans of thousands of commercial construction jobs each year, MSA surveyors collect the names of the most actively specified products and building product manufacturers. These products and manufacturers are then listed in the trade name and manufacturer indices of First Source. In total, this index contains more than 20,000 of the most actively specified building products from more than 9,400 manufacturers.

*"Excellent resource" – Iowa State University*

*"Fantastic Publication" – University of Florida*

*"Very good book for quick ideas. To date, I have found everything I have needed" – Old Dominion University*

- ***It's a book, a website, and a CD-ROM.***

No matter your preference, *First Source for Products* is available at your fingertips. When the publishers of First Source began producing their publication, they set out to create a desktop reference that could be used by all of the members of the building team—owners, facilities managers, designers, specifiers, engineers, and more. The purpose: to create an accessible, easy-to-use source that would allow equal access to the same information.

As technology has progressed, so has First Source. First published in a book format in 1992, First Source "leap-frogged" CD-ROM technology and launched in 1996 First Source Online ([www.afsonl.com](http://www.afsonl.com)), one of the first, most comprehensive Internet websites featuring building product information. This year, First Source will be published on CD-ROM for the first time. In addition to all of the information found in the book and on the website, the CD-ROM will also feature cost information from RS Means that can be "unlocked" through the purchase of a key code (contact RS Means at 800-334-3509 for more information).

- ***It's available to APPA members—AT NO CHARGE.***

All of the *First Source* products are available to the building team at no charge. As one of the many benefits of your APPA membership, you are able to receive a print version of *First Source for Products*. To request your copy, simply access First Source Online ([www.afsonl.com](http://www.afsonl.com)) and select "Receive the Book." Or call 800-395-1988 and ask for Distribution. Be sure to mention that you are an APPA member to qualify. 🏢

## Pro-Stop®

COLLAPSIBLE BOLLARDS

### NOT ALL BOLLARDS ARE CREATED EQUAL

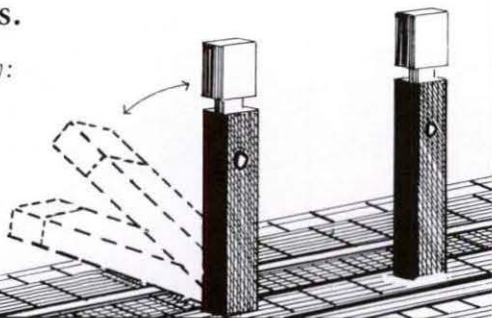
*Only Pro-Stop offers all these benefits:*

- Collapses with standard hydrant wrench.
- Raises and lowers effortlessly.
- Discourages illegal parking.
- Eliminates hazards caused by chains.
- Increases campus security.
- Protects pedestrians.

For more information, call today:

1-800-BOLLARD  
(265-5273)

Prosec, Inc.  
200 Lincoln Ave., Suite 130  
Phoenixville, PA 19460  
Tel (610) 933-8399  
Website [www.prostop.com](http://www.prostop.com)





They've been making us  
stay after school for  
over 90 years now.

We must be doing  
something  
right.



## ABM: high quality, affordable contract maintenance since 1909.

For 90 years, American Building Maintenance Company has been doing something right—high-quality contract maintenance services—without the high cost or liability you would have if workers were employed by the campus.

We've learned our clients' real needs. Studied dozens of ways to save them money. Analyzed costs, productivity and quality levels so well that our clients can save as much as 15% over in-house programs. Without sacrificing quality.

You'll find that our proposals are detailed, accurate, and meet the unique demands of your campus. Building maintenance is all we do—and we've learned to do it very well indeed. More and more institutions are finding that an "operating partnership" with ABM Janitorial Services

for contract custodial, engineering services and grounds care are exactly right for today's tight maintenance budgets.

Call today: 415-733-4000, Extension 4048.

Or write: Robert Ramirez, Vice President,  
ABM College and University Program.  
It's the right thing to do.

Robert Ramirez, Vice President  
College & University Program  
American Building Maintenance Co.  
160 Pacific Avenue, Suite 222  
San Francisco, CA 94111  
Fax 415-733-5126 • e-mail: rramirez@abm.com  
[www.abm.com](http://www.abm.com)



a subsidiary of **ABM** Industries Incorporated



## AutoCAD LT 98—Easy to Learn and Live with

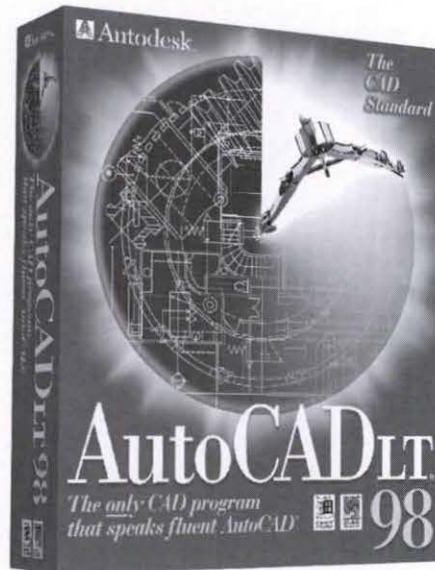
by Howard Millman

I have a low tolerance for hype, but that's an asset in this business of maintenance and engineering (that's also why I have all those arrow holes in my wagon). I had a chance to work with AutoCAD LT 98 recently, on behalf of a university considering an upgrade to AutoCAD from another CAD package, and it appears that LT 98 lives up to Autodesk's promises.

Easier to learn and live with than the full AutoCAD Release 14, LT 98 offers almost as many features as its big brother plus a new customizable graphical interface that eliminates the intimidating command line.

Autodesk makes two products: Release 14 (R14), the full blown \$2,800 premiere drafting package and LT 98 ("light"), a subset of R14 that contains the elements most important in facility design, engineering, and maintenance. For your information, AutoCAD 2000, the new trendier name for the next full version (Release 15) is not yet available.

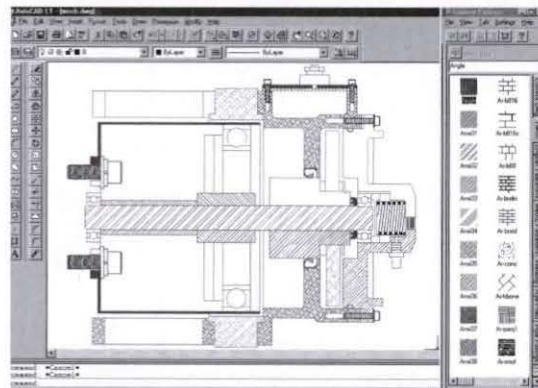
Most schools and universities, and that probably includes yours, can readily use AutoCAD LT exclusively. This package will give you the many benefits of using the industry standard package, such as seamless compatibility with other AutoCAD software, unparalleled support plus extensive



selections of add-ons to achieve the highest productivity with the least effort.

Major differences between the LT and R14 versions include:

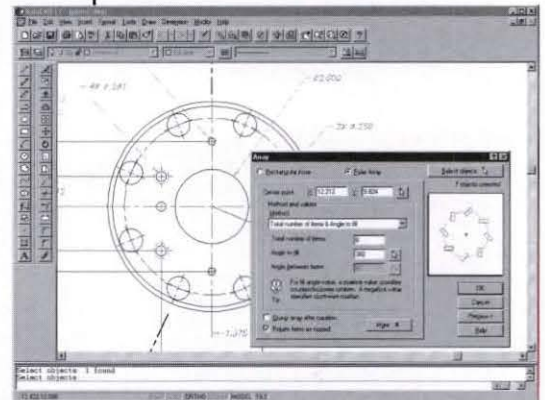
**Street price:** LT cost about \$400, R14 cost about \$2,800. These are approximate prices, you may be entitled to an educational discount. Both versions are network ready.



**Functionality:** For the increased cost, R14 delivers 3D solid- and surface-modeling. Plus, it allows developers to customize the program through the use of Visual Basic for

Applications, AutoLISP functions and ActiveX routines. From what Autodesk says, only the largest architectural and engineering firms utilize the developer's options. You should note that although LT cannot create 3D objects, it can accurately display them. LT's features:

- LT will run on a (Windows NT-based) TCP/IP WAN, enabling access from remote locations when required. A network setup wizard allows administrators to predefine replicable workstation deployments. Since configurations are saved to the system registry, each station can be readily customized.



- LT offers a customizable Windows 98-compliant User Interface, enabling users to create and modify toolbars, buttons, and keyboard shortcuts. A new feature further simplifies the drawing review process. "Revision clouds," bubbles) allow managers, supervisors, or other team members to review and annotate drawings in layers without modifying the original.

**Howard Millman operates the Data System Services, LLC, a vendor-independent consultancy that helps universities and university hospitals select the best products and practices to automate their facility management processes and transform data into knowledge. Reach him at [hmillman@ibm.net](mailto:hmillman@ibm.net).**



- AutoCAD LT 98 also uses a multiple undo/redo function with a list of actions. This made it easier for users to step backward and forward multiple steps.
- Online context sensitive and interactive HTML-based help, along with tutorials, accelerates learning. According to Autodesk, LT users who have some prior familiarity with CAD programs should not need classes (as do most AutoCAD R14 users). Support via phone and e-mail is available to resolve technical problems.
- LT includes tools for accessing drawings on and publishing drawings to the Internet. For a limited time, Autodesk ([www.autodesk.com](http://www.autodesk.com)) is bundling a free version of Actrix's Technical Premier Pack. This space planning and area resource product is designed specifically for facility managers and campus architects who need to create a range of diagrams including room use plans, flowcharts, network diagrams, and engineering schematics.
- Should you later decide some of the staff needs the full version, you can always migrate upwards smoothly. Except for a few icons, the interface between R14 and LT 98 is the same. This should result in increased productivity with less training, lower cost, and less of a chance of "hitting the wall" in the future.

### **Affordable Conversion of Blueprints Nyay Engineers**

The benefits of digitizing your collection of paper and Mylar drawings are endless and now achievable. Nyay Engineers, in Bombay, India, ([www.nyay.com](http://www.nyay.com), 91-22-281-2231) will convert your drawings into AutoCAD format for less than one-half the cost of having it done domestically.

To obtain an estimate of the cost, which can vary considerably, Nyay suggests the sending three "representative" drawings. One drawing is fairly simple, perhaps consisting mostly of

elevations and architectural views. The next is a "typical" floorplan depicting numerous rooms, details, notes, and some utilities. The third should be complex. For example, a mechanical drawing depicting plumbing and ductwork, with many notes. With this range of drawing complexity, the engineers can get an idea of approximately how long it will take to convert your drawings.

When the digital files are complete, they can be transmitted via

the Internet or overnighted on a high capacity disk. When received, the files can be mounted on a shared server for immediate access by other accredited groups

This pilot allows you to gauge the quality of the sample drawings you receive back. I have worked with the firm's Executive Chairman, Indur Mandihyan, on other projects; I am confident that Nyay's work will be of excellent quality. 🏢

## **SVBK CONSULTING GROUP**

*Professional Consulting Services for the Utility Industry*

- |  |                                |
|--|--------------------------------|
| ▪ Electric Industry Restructuring & Deregulation | ▪ Aggregation                  |
| ▪ Fuel Supply Development                        | ▪ Rates and Cost Recovery      |
| ▪ Regulatory Support                             | ▪ Supply Planning              |
| ▪ Cogeneration Analyses                          | ▪ Privatization                |
| ▪ Contract Negotiations                          | ▪ Economic Feasibility Studies |
| ▪ Project Financing Support                      | ▪ Public Procurement           |
| ▪ Strategic Planning                             | ▪ Litigation Support           |

*SVBK Corporate Office*

**205 East Central Blvd, Ste. 500**

**Orlando, FL 32801**

**Telephone (407) 872-1500**

**Fax (407) 843-3200**

**EMAIL [wross@svbk.com](mailto:wross@svbk.com)**



# The Bookshelf

Book Review Editor: Dr. John M. Casey, P.E.

**Howard (Hod) Wells** of the Pennsylvania State System of Higher Education was kind enough to review the American Council on Education publication concerning state higher education systems. I asked Hod to do this for at least two reasons: not only is he an expert in facilities management, but also he has considerable experience with state systems. In addition, I know how busy he is with both his office and APPA projects, so I applied the old "if you want something done, give it to someone who is busy" principle, and Hod responded with the excellent review below. I am sure that all our readers, especially those of us who attempt to advance the frontiers of knowledge in public institutions, will benefit from Hod's insightful comments.

Recently, I received a flyer from the Association of Energy Engineers concerning their Facilities Management Library. As readers of this column may recall, I reviewed the UPWORD Publishing Company's *Facilities Management Library* in the May/June 1998 issue, and compared the UPWORD library with APPA's new four-volume *Facilities Management Manual*. A cursory review of the titles of the ten volumes comprising the Energy Engineers' library suggests to



me that several titles may have merit for our readers, and I promise to present more detailed information on the library in a future column.

Finally, I propose to review APPA publications in future issues. I realized, when comparing the libraries mentioned above, that the wealth of literature published directly by our organization was not reviewed "in-house." The number of these books is impressive, and the various topics covered are even more impressive; APPA's body of literature compares favorably with other major higher education associations. The four-volume *Facilities Management Manual*, for example, is arguably the best reference for professional facilities managers in the field of higher education, but it was "reviewed" only for comparative purposes with the UPWORD Library reviews. I am sure our association can withstand critical review of all its publications by its members, and I promise to keep such reviews free from the odor of "home cooking."

—JMC

\*\*\*

**Designing State Higher Education Systems for a New Century**, by Richard C. Richardson Jr., Kathy Reeves Bracco, Patrick M. Callan and

Joni E. Finney, Phoenix, Arizona: American Council on Education and the Oryx Press, 1998. 204pp, hard-cover.

**Facility officers** may well believe that they have little opportunity to be involved with the design of the higher education system of which their institution is a part, and even some are sure none of this would apply to them since they are associated with private institutions. This book is directed at governors and legislators and reveals options that they will have in the next century so that they will be able to respond to the market in relation to the delivery of higher education learning environments within their jurisdiction. Therefore, there may be even further question as to the value of the material presented by the authors in this 200-page volume.

I currently work in a System Office which functions to advocate for, as well as to nurture, the performance of the staff at fourteen universities in the field of facilities construction administration and management. I thought I knew what to expect in a volume that would talk about higher education system design. Richards, Bracco, Callan, and Finney have introduced a far more complete definition of system than I certainly had envisaged, and appropriately so, in that their definition and evaluation truly cover the full spectrum of activities, agencies, players, and pawns involved in the delivery of the service or product we know as higher education.

Past studies of higher education systems have traditionally looked at the impact that varying governance designs have had upon the institutional autonomy. Academic interest

*John Casey is manager of the engineering department of the physical plant division at the University of Georgia, Athens, Georgia. If you are interested in reviewing a book for The Bookshelf, contact Casey at [jcaseype@uga.cc.uga.edu](mailto:jcaseype@uga.cc.uga.edu).*



was focused upon the professional values from the institution's perspective. Richards, Bracco, Callan, and Finney have developed an analysis based upon the perspective view of the customer or from the pressures of the market forces. It is very revealing to get a glimpse of just how detailed and involved the politics are in the state or regional area of a state in this market force driven enterprise.

With the System components defined and outlined by Richards, Bracco, Callan, and Finney, you will realize that the entire community of higher education is involved, not just public colleges and universities. Further, universities thought to be quite independent and autonomous are part of the analyzed system. Private institutions are included since in most states there is far more control of these institutions by some governing body (other than their own board of trustees) within the state than any of us might realize. Private schools must sometimes gain sanction from state level governing bodies when they desire to add, drop, or change degree offerings. Additionally, there are times that private institutions receive appropriations for portions of their operating budgets for one reason or another. Financial Aid from the state public process is provided for students who attend private and public institutions.

The financial side of the system is involved with the financial aid provisions as well as the direct provision of resources through the appropriation process. All of these factors are very much involved in the current situation throughout the post secondary world where the cost is growing much faster than inflation with the real possibility of the failure of institutions due to financial crises. This rising cost is of paramount concern to the individual student/family that is paying out of pocket or amassing considerable debt to achieve a higher education degree. The market

## It All Starts with Money.

M&R funding cannot be taken for granted in today's competitive environment. Facility managers and those with capital asset responsibilities must be able to foresee future maintenance and repair requirements, and show the impact M&R investment has on the corporate balance sheet.

### A Unique Tool: The MARS Facility Maintenance Cost Forecast System

Focus on M&R investment and the value of your building assets, not on printing work orders. Forecast facility-wide M&R requirements out 50 years or drill down to individual component-level detail. Monitor the value-add of facility management as MARS automatically calculates your backlog and tracks the net asset value of your building portfolio.

MARS comes preloaded with the extensive Whitestone M&R database, including life-cycle task data and costs for 116 metro areas. Use MARS building models or create your own buildings from scratch with our inventory of hundreds of components. Pre-defined MARS reports are copy-ready for your presentations, and exportable to other Windows® applications.

### Let MARS help you get the funding you need.



Call 1-800-210-0137 or visit [www.whitstoneresearch.com](http://www.whitstoneresearch.com) today for your free evaluation copy of MARS.

WHITESTONE RESEARCH

**MARS** 3.0

## When You Deal with the Stanley Group You Get a Full House of Services

**Master Planning**  
**Engineering Design**  
**Environmental Services**  
**Construction Management**  
**Design-Build**

The Stanley Group has proudly served on over 100 campuses nationwide. With full-service engineering, environmental, and construction services in-house, The Stanley Group is ready to assist you with your next project.



**The Stanley Group**

Engineering, Environmental and Construction Services - Worldwide

**Stanley Consultants INC. Stanley Design-Build INC. Stanley Environmental INC.**

Stanley Building • 225 Iowa Avenue • Muscatine, Iowa 52761-3764 • 319.264.6600 • fax 319.264.6658

[www.stanleygroup.com](http://www.stanleygroup.com)



# TO STEP INTO THE FUTURE, LET GO OF THE PAST

Process improvement will transform the raw data locked in your facility management system into knowledge.

## DATA SYSTEM SERVICES

Howard Millman - Dan Millman, PE

888-271-6883

A vendor-independent provider of system integration and knowledge management services including data mining and decision support.



Get answers to your questions:

- \* productivity analysis and enhancement
- \* comparative labor performance
- \* material cost allocations
- \* asset ID and condition surveys

**DATA SYSTEM SERVICES sells no products, assisting you to meet your goals is our only objective.**

hmillman@lbm.net

forces bring significant pressure to bear on those in state leadership roles who can, through leadership or through legislation, attempt to have some measure of control upon the cost and upon the quality and appropriateness of advanced learning opportunities.

Richards, Bracco, Callan, and Finney provide examples from seven different states offering insight into

the differing methods of system function and design to portray how the various types of governance, coupled with leadership styles, can be used to achieve the market force or consumer driven objectives.

This book may seem to deal with a subject that is far too distant from our facility purview, but we can only look back in our individual experiences to see how institutions have

attempted to deal with financial strife by deferring maintenance instead of truly analyzing the continuing requirement for some degree offerings that have long since passed their point of worth. After reading this book, I found examples of two current events covered in the national and state newspapers to be of much greater interest to me. One was in Maryland where a state senator, a College Park graduate, is threatening to introduce legislation that will remove the flagship campus of the University of Maryland from under Maryland System governance if the System does not give the university a larger share of the total appropriation. Larger in this case is significant in that the vision for that institution is to gain the same stature that they believe certain other "world class" universities have achieved. The second example, closer to home and very recent, is another state senator, a graduate of the Johnstown Campus of the University of Pittsburgh, is holding the total appropriation for the University of Pittsburgh hostage in order to attempt to force the university to distribute a greater portion of the appropriation to the Johnstown campus.

For those who take the APPA Vision "Global Partner in Learning" to heart, this book will provide a detailed insight into the myriad of parameters that are involved with the leadership of our institutions. From the "Partner" perspective, if we hope to gain, as a profession, a greater role in the leadership of our institutions, then the exposure to what Richards, Bracco, Callan, and Finney present is a must.

**Howard A. (Hod) Wells Jr., P.E.**

Director of Construction  
Management

State System of Higher Education  
Harrisburg, Pennsylvania 🏰



# Equipped to manage any maintenance operation

PalmPilot™ paperless work order system for mobile technicians

Data capture made easy via Symbol®'s SPT 1500 handheld

Built-in money saving features like multiple maintenance centers & multi-platforming capability

Complete management of entire project scope

Email, Internet & Intranet Access

Robust document management system for CAD drawings

Investment protection through preventive maintenance scheduling

Complete work tracking & control utilizing a powerful work order management system

Having the right tool is essential. Essential when you are speaking in terms of a facility's maintenance operation. That's precisely why TMA is in the business of developing technology that facilitates a cost-effective solution to streamlining productivity by means of our Computerized Maintenance Management System software.

For more information, call TMA Sales toll-free **800.862.1130**  
or visit our website at [www.tmasys.com](http://www.tmasys.com)



All other products and company names used in this advertisement are copyrights, trademarks or registered trademarks of their respective holders.



Continued from page 16

opportunity to participate in the meetings, I am encouraged that a new and improved survey, with a broader range of benchmarks, will be the final result.

I would like to thank President-Elect Maggie Kinnaman, not only for her continued commitment to this vital effort, but also the generous utilization of the Presidential Discretionary Fund, which has allowed the Task Force to meet.

February 1, 1999 saw the much anticipated, and planned for conversion of the APPANet website ([www.appa.org](http://www.appa.org)). After significant deliberation, the committee decided at its November meeting, to roll-out the website so it would coincide with the winter board meetings. Hopefully, all of you have visited APPANet recently, and have observed that it is now formatted to reflect our organization's four core competencies: General Administration and Management, Maintenance and Operations, Energy and Utilities, and Planning Design and Construction. The site continues to provide all of the other previously available information, features, and the highly utilized Job Express.

In an effort to assist the staff in obtaining and placing additional content under the four core competencies' sub-pages, the committee has appointed "godparents" to spearhead the effort.

The "Godparents" met, by conference call, in March with APPA staff to initiate the effort. The "Godparents" are Vickie DeWitt, General Administration and Management, C.R. Lyons, Maintenance and Operations, Larry Givens, Energy and Utilities, and Sue Kirkpatrick, Planning and Design Construction. The "Godparents" and staff would like to begin to solicit the many success stories that exist within our membership ranks. Additionally, we would like members to provide copies of Requests for Proposal or Contracts for APPANet posting. If you have any items you would like to submit, please feel free to e-mail [webmaster@appa.org](mailto:webmaster@appa.org). We can use your help!

All the improvements to the Home Page have already resulted in APPANet seeing increased daily usage. Since it's February inception, we are averaging about 560 user sessions per day. Hopefully, as APPANet continues to become a more viable and dynamic tool for our membership, we will continue to see heightened user growth.

*Facilities Manager*, our flagship publication, has been overwhelmingly received by our members and advertisers. I have personally enjoyed the variety and depth offered by the magazine, and I continue to receive many positive comments from our members. While our editor, Steve Glazner, deserves the lion's share of the praise, I would like to thank all of our members who have taken the time to author the articles,

which are clearly the heart of this publication. We should all be looking forward to future issues!

New publications include:

- *The Strategic Assessment Model*, published June 1999, cosponsored by Nalco Chemical Co.
- *Charting a New Course for Campus Renewal*, by Rod Rose, (a summary of the Capital Renewal Conference held at University of New Mexico), published June 1999.
- *The Metering Guide for Managers*, authored by Mohammad H. Qayoumi, cosponsored by Electric Power Research Institute (EPRI) & International Facility Management Association (IFMA), published June 1999.

APPA's discussion listserv, APPAinfo, continues to grow with subscriptions at 434!! This is up from 320 in February, 1999. Based on personal observation, the service is heavily utilized and quite helpful. Some of you may remember that this service was designed to replace the International Experience Exchange Program, which was abandoned in 1997 due to almost non-existent usage and an overly cumbersome database.

## VP for Professional Affairs Report

Jack K. Colby P.E.

### 1. Status Report on Evaluation of the Facilities Management Evaluation Program (FMEP)

The Professional Affairs Committee (PAC) committed the majority of its annual meeting in November to the revisions to the criteria and to the processes currently used for the self evaluation and the team evaluations. The criteria were completely reworked to include existing topics in a new framework of Baldrige headings. Benchmark criteria were added from "SAM" and from the Baldrige program. Other recommendations from the survey were also incorporated. Progress was reported to the Executive Committee and to the full Board in February. Work continues on the criteria language and on specifics of the new format for the self evaluation and the site Team's documentation.

### 2. Status Report on Evaluation of the Award for Excellence

The PAC will utilize the revised FMEP criteria to revamp this program. A new point driven evaluation system will be used to select submissions worthy of the award. A new section was added to recognize innovations and best practices. Award recipients will receive extensive recognition at the national, regional, and institutional levels. Corporate

Continued on page 54





# Your Cards Already Work With Our Lock

If you use an ABA standard, Track 2, magnetic stripe card system, like most phone, credit, and "one-cards", you'll love our locks. Locknetics' Computer-Managed (CM) cylindrical and mortise electromechanical locks can now be equipped with a full-swipe, Track 2 card-reader that already works with your system. What's more, you can use personal keypad codes, electronic key access, or even require two of these access methods for higher security and less liability.

Locknetics' CM Series stand-alone, battery-powered locks employ a rugged, simplified design with the patented TorqDefender™, clutch-controlled outside lever that stands up to the most difficult environments. You can add, change or delete up to 500 users in seconds with a portable or palmtop PC, or through the keypad. Time Expiration and 500-event audit trail are also available. And like all CM Series locks, card reader locks are easy to install or retrofit, with no additional wiring.

LockLink™ Windows®-based software provides access control management of unlimited users and access points. And it can help you manage not only your card reader locks, but the entire family of Locknetics intelligent locking devices, including Pentagon™ electromagnetic locks, SmartExit™ exit devices, SmartEntry™ strikes and SelectEntry™ keypads.

## **CM Card Reader Locks Give You More... with Less Work:**

- Three access methods: card, data key, and/or keypad
- Full swipe card reader
- Vandal-resistant TorqDefender clutch-controlled outside lever
- Durable construction with 50% fewer moving parts
- Up to 80,000 activations from AA batteries — no external wiring
- Easy programming of up to 500 users and audit trail events
- Easy installation or retrofit



**Locknetics Cardreader  
Programmable Door Lock**

Call Today:  
**860/584-9158**

**Secure Your Future With...**

## **LOCKNETICS**

**Security Engineering**

a HARROW company

575 Birch Street, Forestville, CT 06010 • Fax: 860/584-2136 • <http://www.locknetics.com>

Windows is a Registered Trademark of Microsoft Corporation



Continued from page 52

sponsorship for cash awards is being considered. The PAC believes that this revamped program will raise the visibility of the Award and will enhance the recognition of Award recipients. Progress was reported to the Executive Committee and the Board in February. "Roll-out" of the new Awards format will occur as marketing materials are developed.

### 3. Guidelines for APPA Institute and Academy Scholarships

Based on the senior rep's feedback to the Board in February, APPA scholarship funds will continue to be distributed to the Regions in lieu of shifting the funds to AFE cash awards. The PAC has concluded its current activity on scholarships by

sending notices of the guidelines to each regional President and to the Sr. Rep. for each region.

### 4. APPA Seat on NEC/NFPA Technical Committee

Mike Anthony at the University of Michigan reports that our first application for a seat on one of the NEC technical committees is still pending but may not result in a seat being awarded due to the entrenched nature of the other representatives. Therefore, he will apply for a seat on another committee that may have a better chance for success. This application is in progress and will be enhanced by support from the VPPA, EVP, and the President.

### 5. ASHRAE Committee Participation by APPA members

I have made attempts to contact the Chair of the Ashrae committee on district energy. Our goal is to identify an APPA liaison to the committee to represent higher education issues for district energy systems. Efforts will continue to identify a representative to attend the committee meeting.

### 6. Award for Excellence Awards for 1998-99

To date in 1998-99, five institutions have submitted materials for evaluation by the PAC. The submission by Georgia State was brought to the Board in February. The submissions by East Carolina University and Memorial University of Newfoundland were evaluated and brought to the Board by fax ballot. The submissions by the University of Southern California and Slippery Rock University have been received and are currently being evaluated. Recipients of the Awards for Excellence in 1998-99 will be recognized at the annual meeting, at their regional meetings, and in *Facilities Manager* magazine.

The "team" efforts of committee members Kathleen Mulligan, Brian Nielsen, John Harrod, Phil Garment, Ron Smith, Brian Fenn, and Medea Ranck are appreciated for this important task. 🏛️

## Housekeeping Staffs are Recognized

The International Executive Housekeepers Association, Inc. has selected the week of September 12-18, 1999, as the official week to recognize all housekeeping staffs. However, departments will celebrate based on their facility's activity calendar. Housekeeping personnel ensure your facility of the highest quality service and cleanliness. Let them know how much they are appreciated!

The purpose of **International Housekeepers Week** is to focus attention and recognition on professional Housekeepers working in all types of facilities such as hotels, hospitals, state facilities and colleges/schools.

This September 12-18, Housekeeping Departments throughout the world will be recognized. I.E.H.A. invites you to join in the spirit by giving recognition to these highly trained individuals, who work as a unified group in using their knowledge and experience to maintain the appearance of their place of business.

We are proud to celebrate International Housekeepers Week and are proud to honor the professionals who are **"Solving Tomorrow's Problems Today through Pride-Quality-Excellence."**



I.E.H.A. • 1001 Eastwind Drive • Suite 301 • Westerville, Ohio 43081-3361  
(614) 895-7166 / 1-800-200-6342 • Fax: (614) 895-1248  
www.ieha.org e-mail: excel@ieha.org





- 1 Illuminated Logo/Letters
- 2 Fire Evacuation
- 3 Room Identification
- 4 Secondary Directories
- 5 Restroom Signage
- 6 Directional
- 7 Main Identification
- 8 Touch Screen Directories
- 9 Logos
- 10 Dimensional Letters
- 11 Traffic Control
- 12 Parking Structure
- 13 Floor Level Identification
- 14 Safety & Maintenance

# Does your campus pass the test?

We have over 27 years experience making sure that signage systems make the grade. We have the expertise to take care of all your wayfinding needs, from interior to exterior . . . from interactive touch screen kiosks to basic safety signage. And we offer a collaborative, comprehensive, planned approach that's made a difference for universities coast to coast.

Getting through college is hard enough.  
Getting around it shouldn't be.

For a brochure or video, call 1-800-777-8283.  
We'll educate you for free.

**INNERFACE®**  
SIGN SYSTEMS, INC.  
*The company that does things right.*

5320 Webb Parkway, Lilburn, Georgia 30047-5943  
1.800.777.8283 [www.innerface-signage.com](http://www.innerface-signage.com)

ADA  
Logos

Interior Signage  
Sign Planning

Exterior Signage  
Touch Screen Directories

Safety Signs  
Installation



# Coming Events

## APPA Events

For more information on APPA seminars and programs, contact the APPA Education Department at 703-684-1446 ext. 230 or ext. 231.

**September 12-17—Institute for Facilities Management.** Montreal, Canada.

**Jan. 23-27, 2000—Institute for Facilities Management.** San Antonio, TX.

**July 16-18, 2000—Educational Conference & 87th Annual Meeting.** Fort Worth, TX.

**July 22-24, 2001—Educational Conference & 88th Annual Meeting.** Montreal, Canada.

## APPA Regional Meetings

**Sept. 26-29—AAPPA Annual Meeting.** Wellington New Zealand.

**Sept. 26-29—MAPPA Annual Meeting.** Notre Dame, IN.

**October 3-5—ERAPPA Annual Meeting.** Ocean City, MD.

**October 3-5—PCAPPA Annual Meeting.** Las Vegas, NV.

**October 6-10—RMA Annual Meeting.** Albuquerque, NM.

**October 10-14—CAPPA Annual Meeting.** San Antonio, TX.

**October 23-26—SRAPPA Annual Meeting.** Biloxi, MS.

## Other Events

**Sept. 9-12—Historic Plaster Repair: Ceilings/Walls.** Windsor, VT.  
Contact The Preservation Institute, 802-674-6752.

**Sept. 12-18—International Housekeepers Week.** Contact the International Executive Housekeepers Association, 800-200-6342.

**Sept. 15—Virginia Tech's Hampton Roads Agricultural Research and Extension Center 24th Annual Field Day.** Virginia Beach, VA.  
Contact Dr. Bonnie Appleton, 757-363-3906.

**Sept. 19-23—Groundskeepers Management Academies.** Denver, CO. Contact Grounds Maintenance Services, 800-227-9381.

**Oct. 3-4—Preserving the 20th Century Building Envelope.** Cambridge, MA. Contact Technology & Conservation, 617-623-4488.

**Oct. 6-8—14th Annual IDEA Cooling Conference; District Cooling: Technical & Business Innovations for the 21st Century.** Atlantic City, NJ. Contact IDEA, 202-429-5111.

**Oct. 12-15—IEHA's 1999 Educational Conference and Convention.** Chicago, IL. Contact the International Executive Housekeepers Association, 614-895-7166.

**Oct. 28—CMD Group's 4th Annual North American Construction Forecast.** Washington, DC.  
Contact CMD Group, 770-417-4000.

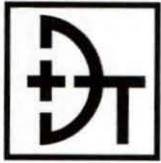
**Oct. 29-31—1999 Technical Symposium.** Philadelphia, PA.  
Contact the American Society of Plumbing Engineers, 805-495-7120.

**Oct. 31-Nov. 5—National Association of Elevator Contractors 50th Annual Convention.** Atlantic City, NJ. Contact NAEC, 800-900-6232.

## Index of Advertisers

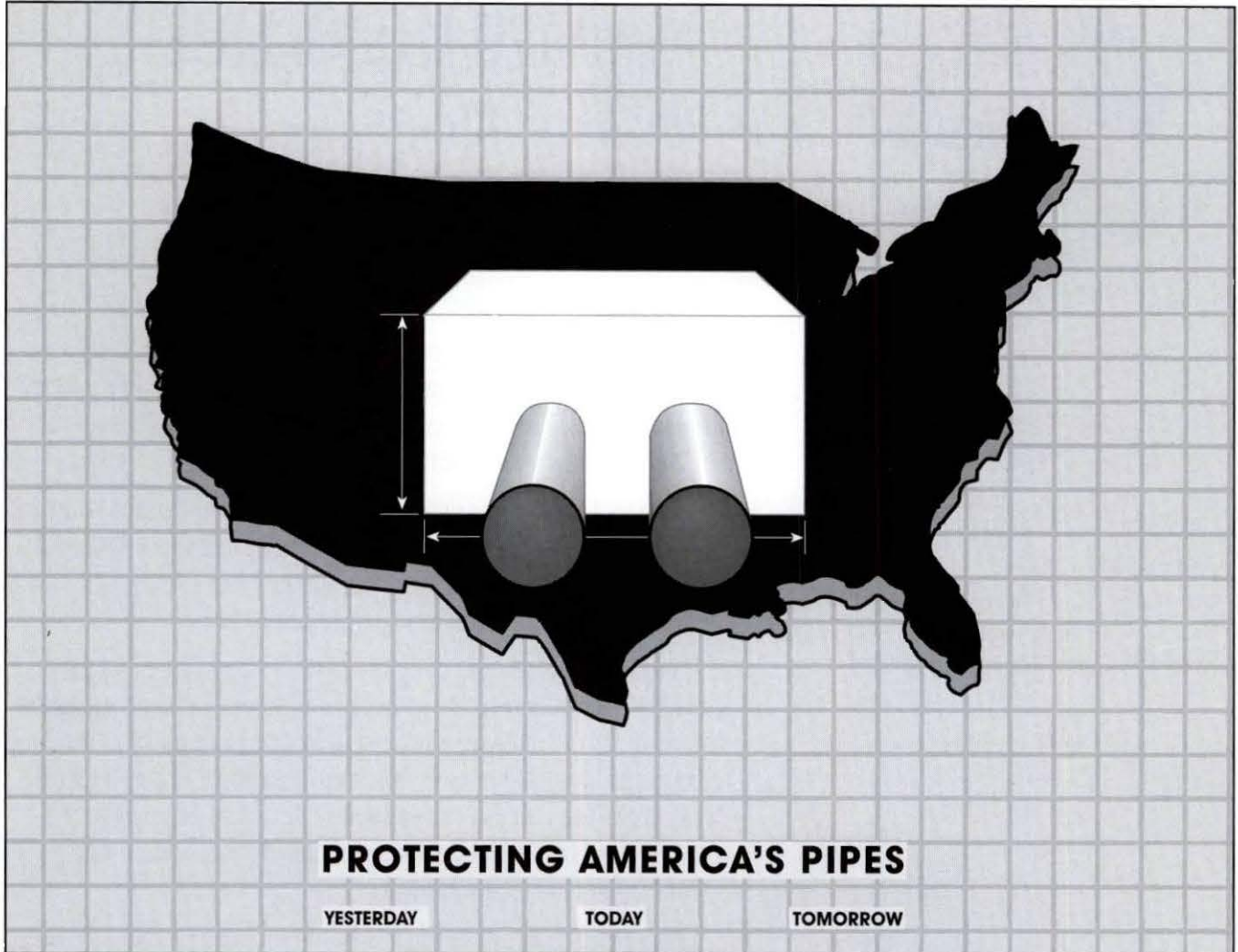
ABM Industries .....	45	Johnson Controls, Inc. ....	28-29
American Thermal Products, Inc. ....	3	LaSalle Group .....	7
Anadac .....	20	Locknetics Security Engineering .....	53
APPA Publications .....	34	McCourt Manufacturing .....	6
APPA Manual .....	31	New Horizons Technologies .....	40
Ascension .....	27	Perfectimm Inc. ....	26
AssetWorks, Inc. ....	Cover 2	Prism Computer Corporation ....	Cover 4
Construction Specification Institute ....	4	ProStop Bollards .....	44
Data Systems Services .....	50	R.S. Means Company Inc. ....	16
DriTherm .....	Cover 3	Salsbury Industries .....	42
G. Reale Enterprises Inc. ....	40	Southern Bleacher Company .....	15
George B. Wright Co., Inc. ....	41	Stanley Consultants, Inc. ....	49
Indus Systems .....	13	SVBK Consulting Group .....	47
Informed Software .....	18	TMA Systems, Inc. ....	51
Innerface Architectural Signage .....	55	Whitestone .....	49
ISES Corporation .....	32		





**Dritherm®**

## Underground Pipe Insulation / Corrosion Protection



- Continuously Manufactured Using Same Formula Since 1967
- Closed Cell - 100% Hydrophobic Design
- Temperature Range: -273°F (Cryogenic) to +480°F (250°C)
- Ideal for New Piping Systems / Repairs / Tanks
- Approved by Department of Defense for New Construction

**DRITHERM INCORPORATED**  
P.O. Box 5296  
Parsippany, New Jersey 07054  
(800)343-4188 **FAX (973)428-3391**



THE FAMIS ASSET  
ENTERPRISE



Maintenance Management

Space Management

Calibration Management

Inventory Control

Tool Control

Key Control

Event Management

AutoCAD Interface

Web Site



TRADEMARKS:  
ORACLE of Oracle Corporation.  
FAMIS of Prism Computer Corporation.  
BANNER is a registered trademark of  
System & Computer Technology  
Corporation.

# What Do You Want In A Facility Management System?

How about everything?

You could buy a maintenance management system from vendor X and a space management system from vendor Y and try to force the two to talk to each other. Or you can take a look at Prism Computer Corporation.

Prism's FAMIS Asset Enterprise is a suite of integrated software modules for managing facilities. Since each module is designed to work together, you can easily create the ideal facility management solution for your organization.

And with our advanced technology, you can also easily expand the FAMIS Asset Enterprise to people outside of your organization to create a true enterprise-wide system. For example, you can electronically communicate with your customers using the World Wide Web. You can also integrate it with Oracle Financials, SCT BANNER and just about any other financial system using our FAMIS Open Financial Interface.

The FAMIS Asset Enterprise is based on pure Oracle technology and supports Windows, Windows95/NT, Macintosh and Power Macintosh.

To find out a better way to manage your facilities, call us today at 800-774-7622 or visit our web site at [www.prismcc.com](http://www.prismcc.com).

PRISM



PRISM COMPUTER CORPORATION

TELEPHONE 800-774-7622 / FAX 714-553-6559

E-MAIL: [famis@prismcc.com](mailto:famis@prismcc.com)

<http://www.prismcc.com>